



City and County of San Francisco

Office of the Controller – City Services Auditor

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PORT OF SAN FRANCISCO:

Purchasing and Inventory Controls Needed to Prevent Waste and Fraud

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March 6, 2008

**CONTROLLER'S OFFICE
CITY SERVICES AUDITOR**

The City Services Auditor was created within the Controller's Office through an amendment to the City Charter that was approved by voters in November 2003. Under Appendix F to the City Charter, the City Services Auditor has broad authority for:

- Reporting on the level and effectiveness of San Francisco's public services and benchmarking the city to other public agencies and jurisdictions.
- Conducting financial and performance audits of city departments, contractors, and functions to assess efficiency and effectiveness of processes and services.
- Operating a whistleblower hotline and website and investigating reports of waste, fraud, and abuse of city resources.
- Ensuring the financial integrity and improving the overall performance and efficiency of city government.

The audits unit conducts financial audits, attestation engagements, and performance audits. Financial audits address the financial integrity of both city departments and contractors and provide reasonable assurance about whether financial statements are presented fairly in all material aspects in conformity with generally accepted accounting principles. Attestation engagements examine, review, or perform procedures on a broad range of subjects such as internal controls; compliance with requirements of specified laws, regulations, rules, contracts, or grants; and the reliability of performance measures. Performance audits focus primarily on assessment of city services and processes, providing recommendations to improve department operations.

We conduct our audits in accordance with the Government Auditing Standards published by the U.S. Government Accountability Office (GAO). These standards require:

- Independence of audit staff and the audit organization.
- Objectivity of the auditors performing the work.
- Competent staff, including continuing professional education.
- Quality control procedures to provide reasonable assurance of compliance with the auditing standards.

Audit Team: Donna Crume, Audit Manager
Pablo Federico, Audit Manager
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City and County of San Francisco

Office of the Controller - City Services Auditor

Port of San Francisco: Purchasing and Inventory Controls Needed to Prevent Waste and Fraud

March 6, 2008

Purpose of the Audit

We conducted this audit in response to a request from the Port of San Francisco and an audit recommendation from the Board of Supervisors Budget Analyst. Our audit objectives were to determine if the Port's Maintenance Division has internal controls to prevent unauthorized or unnecessary purchases, if it purchases items at appropriate prices and from appropriate vendors, and if it maintains an accurate inventory of its materials/supplies and tools.

Highlights

The Maintenance Division has multiple weaknesses in its purchasing and receiving practices:

- The purchases are not well planned or properly approved, which causes the division to lose bulk pricing discounts, incur excessive costs for processing invoices, purchase items that it never used, rent items for more than the cost of buying them, and purchase prohibited goods.
- Vendors overcharge because invoice prices are not regularly compared with quoted prices.
- The storeroom does not verify the accuracy or condition of shipments received for shops and some shops pick up goods directly from vendors rather than having the goods delivered to the storeroom.
- The division took an average of 56 days to pay vendors, causing it to lose prompt payment discounts.

The Maintenance Division does not have an effective inventory control system:

- The list of materials in the storeroom is inaccurate and incomplete – physical counts of items often do not match the count on the inventory list, and the list does not include materials purchased for capital projects or the shops' direct purchases.
- Storeroom staff adjust inventory counts when discrepancies are identified but do not adequately research the cause of the discrepancy, which prevents identification of corrective action to reduce the risk of loss.
- The lack of an effective system for distributing materials increases the risk of theft.
- Only 71 of 877 items in the storeroom are frequently used and there is not a process for identifying and disposing of unneeded stock.
- The lists of shop tools and equipment are inaccurate and incomplete, and there is inconsistency regarding how assets valued at less than \$5,000 are tracked.

In addition:

- The Avantis Facilities Maintenance Management System does not meet planning, purchasing, and inventory control needs.
- Security practices do not ensure that access to facilities is restricted to authorized personnel.
- Employees used Port resources for personal purposes.

Recommendations

The audit report includes 56 recommendations designed to improve control and accountability over the purchasing, receiving, and inventory functions. The recommendations include developing and implementing written policies and procedures and conducting complete physical counts of materials, tools, and equipment to:

- Increase accountability over what is purchased and who is allowed to make purchases
- Ensure that purchases are planned based on need and the ability to take advantage of bulk buying power
- Update inventory records to reduce the risk for loss, theft, deterioration, and obsolescence.

In addition, the report recommends that the Maintenance Division:

- Develop and consistently implement procedures to impose discipline on employees who do not comply with the policies and procedures.
- Establish performance measures to gauge purchasing efficiency and effectiveness.

Copies of the full report may be obtained at:

Controller's Office • City Hall, Room 316 • 1 Dr. Carlton B. Goodlett Place • San Francisco, CA 94102 • 415.554.7500
or on the Internet at <http://www.sfgov.org/controller>

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CITY AND COUNTY OF SAN FRANCISCO
OFFICE OF THE CONTROLLER

Ed Harrington
Controller

Monique Zmuda
Deputy Controller

March 6, 2008

Monique Moyer, Executive Director
Port of San Francisco
Pier 1, The Embarcadero
San Francisco, CA 94111

Dear Ms. Moyer:

The Controller's Office, City Services Auditor, presents its audit report of the Port of San Francisco. The audit objectives were to evaluate the purchasing and inventory practices of the Maintenance Division to determine if the division has internal controls to prevent unauthorized or unnecessary purchases, if it purchases items at appropriate prices and from appropriate vendors, and if it maintains an accurate inventory of its materials/supplies and tools.

We concluded that the Maintenance Division has multiple weaknesses in its purchasing, receiving, and inventory practices that:

- Increase the risk of purchasing fraud, vendor collusion, and theft
- Result in increased costs of materials through overcharges, loss of bulk buying power, and loss of vendor discounts
- Prevent effective budgeting, operating, and financial management decisions
- Result in understatements of inventory and other assets on the Port's financial statements.

In addition, the Avantis Facilities Maintenance Management System does not meet the Maintenance Division's needs for planning, purchasing, and inventory control; security practices do not ensure that access to facilities is restricted to authorized personnel; and employees used Port resources for personal purposes.

The audit includes 56 recommendations designed to improve control and accountability over the purchasing, receiving, and inventory functions. A cost versus benefit approach should be considered in implementing the recommendations. The Port's response to the recommendations is attached as Appendix C. The Port concurs with the findings and recommendations of this report and some of the recommendations have been implemented.

We appreciate the assistance and cooperation that Port staff provided to us during the audit.

Respectfully submitted,

Ed Harrington
Controller

cc: Mayor
Board of Supervisors
Port Commission
Civil Grand Jury
Budget Analyst
Public Library
Hood & Strong LLP

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LIST OF ACRONYMS

DPW	Department of Public Works
FAMIS	Financial Accounting Management Information System
FY	Fiscal Year
GAO	General Accounting Office (Changed to Government Accountability Office in July 2004)
PO	Purchase Order
RAS	Requisition and Approval System

INTRODUCTION

Audit Authority

The City Charter provides the City Services Auditor with broad authority to conduct audits of City departments and services. We conducted this audit under that authority and in response to a request from the Port of San Francisco (Port) and a recommendation made by the Board of Supervisors Budget Analyst in a recent audit of the Department of Public Works. The Budget Analyst recommended that the City Services Auditor work with the City's materials storerooms and recommend guidelines and procedures for internal controls in this area.

Background

The Port employed over 100 skilled craftspersons in 2005-06 to maintain 19.8 million square feet of waterfront property

The Port is a public enterprise responsible for promoting a balance of maritime, recreational, industrial, transportation, public access, and commercial activities by managing and developing San Francisco's waterfront property. The Port's Maintenance Division employed more than 100 skilled craftspersons in 2005-06, including carpenters, electricians, painters, gardeners, pile drivers, plumbers, roofers, and other trades, to maintain 7.5 miles (19.8 million square feet) of waterfront property in support of these activities. The trade shops are located primarily at Pier 50, Shed D, but various other buildings and facilities also house maintenance operations, including facilities at Fisherman's Wharf, the Agricultural Building, Pile Driving Operations maintenance trailers at various piers, corporate yards at Piers 70 and 90, and the Pier 80 Crane Maintenance Operation.

Annual budget of \$30.2 million

In fiscal year (FY) 2005-06, the Port Maintenance Division had an annual budget of \$30.2 million. According to the Port, \$14.6 million of this amount was for continuing projects, \$2.7 million for annual projects, \$0.3 million in capital projects, and \$12.5 million for non-project expenditures. The records are not maintained in a way that allows easy identification of the portion of this amount that was used for materials and supplies versus services.

Port management expressed concern to the Controller's Office regarding the integrity of the Maintenance Division's purchasing and inventory practices. The Board of Supervisors Budget Analyst's audit of the Port in 2004 included six recommendations to address inventory issues.

We physically inspected Port facilities and saw that many previously identified concerns still exist and that several other issues had surfaced.

Objectives

The audit objectives were to determine if the Maintenance Division:

1. Has purchasing controls that prevent unauthorized or unnecessary purchases
2. Purchases items at appropriate prices and from appropriate vendors
3. Accurately inventories materials/supplies and tools

Scope and Methodology

Our audit period included purchases that the Maintenance Division made during FY 2005-06 and the first half of FY 2006-07.

Our audit methodology included:

- Reviewing the Maintenance Division's inventory functions and some accounting functions as they relate to the division's purchasing and inventory control functions, including a sample of invoices, inventory lists, and transactions to understand how the inventory management system works and the accuracy of the inventory lists.
- Interviewing staff and management to understand how the requisition and purchasing process works and what safeguards are in place to prevent or detect unauthorized or unnecessary purchases.
- Following up on certain recommendations in the Board of Supervisors Budget Analyst report, *Management Audit of the Port of San Francisco*, April 26, 2004.
- Reviewing the terms of purchasing contracts between the Maintenance Division and its vendors and testing compliance with these contracts and the Maintenance Division's procedures. This involved contacting vendors, meeting with the City's Purchasing Office, and reviewing pricing agreements.
- Conducting observations including:
 - Physically counting items in the inventory.
 - Visiting several locations and physically verifying the location of tools, equipment, materials, and supplies.
 - Inspecting storage rooms, closets, sheds, and other

- enclosures used by the division to store tools, equipment, materials, and supplies.
- o Walking through buildings, sheds, and piers to observe the procedures in place to safeguard assets.

Much of the analysis in our report is based on the book *Inventory Best Practices*, by Steven M. Bragg,¹ and the *Executive Guide, Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property*,² by the United States General Accounting Office³ (GAO). *Inventory Best Practices* provides nearly 200 best practices that address every phase of inventory activities, along with guidance on how to successfully implement these ideas. The GAO's *Executive Guide* is based on the inventory count processes and procedures of seven private sector companies that have been recognized for their outstanding record of inventory management. The *Executive Guide* identifies 12 key factors and practices that these companies use to achieve accurate and reliable physical counts and summarizes their fundamental principles of inventory management. The GAO identified these practices as ones that could be effectively implemented in federal agencies to resolve significant weaknesses in their property and inventory accountability and financial reporting, because the practices are widely adaptable to a variety of inventory types, volumes, and dollar values. Appendix A summarizes the 12 key factors from the *Executive Guide*, as well as strategies to consider when implementing the key factors.

Due to many inaccuracies in the Maintenance Division's records, we were not able to quantify the full impact of the findings on a division-wide basis. Instead, our report includes specific examples that support the findings.

A performance audit includes obtaining an understanding of internal controls considered significant to the audit objectives and testing compliance with significant laws,

¹ Bragg, Steven M., *Inventory Best Practices*, John Wiley & Sons, Inc., New Jersey, 2004.

² *Executive Guide: Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property* (GAO-02-447G), United States General Accounting Office, 2002, <http://www.gao.gov/new.items/d02447g.pdf>.

³ The name of the United States General Accounting Office was changed to the United States Government Accountability Office in July 2004.

regulations, and other compliance requirements. To plan this audit, we considered whether internal controls significant to the audit were properly designed and implemented. We obtained an understanding of the Port's controls over program operations to provide reasonable assurance that the program met its objectives. Our testing of internal controls focused only on those related to our audit objectives as stated above, and was not intended to form an opinion on the adequacy of internal controls of the entire Port, and we do not render such an opinion. Weaknesses noted in our testing are discussed in the following chapters of this report.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Chapter 1 – Purchasing and Receiving

Summary

The Maintenance Division's lack of adequate planning and purchasing practices allows unauthorized and unnecessary purchases. Its purchasing practices allow vendor overcharging because invoice prices are not regularly compared with quoted prices. Further, its receiving procedures increase the risk of purchasing fraud and vendor collusion. The Maintenance Division took an average of 56 days to pay vendors, which is inconsistent with the City's Prompt Payment Guidelines.

Finding 1.1

The Maintenance Division's purchasing practices allow unauthorized and unnecessary purchases

Maintenance Division purchases are not well planned or properly approved

The Maintenance Division does not adequately plan for its purchasing needs and does not have procedures to verify the appropriateness and necessity of purchases. In addition, many people have the ability to purchase items and they regularly circumvent the approval process. Trade shop employees have purchased tools, materials, and supplies at will and were only questioned if the deputy director or a shop superintendent, during review for approval of a requisition, remembered recently purchasing the same item. The shops routinely order excess materials and use money left over in their budgets at the end of the year to purchase materials and supplies for future operating needs. When purchases are made in advance without a work order they are not charged to the proper job number. They do this because they view the approval and acquisition process as time-consuming.

Specific examples of the effects of the purchasing weaknesses are:

Multiple purchases result in lost bulk pricing discounts

- The Port misses out on bulk pricing discounts for identical items that are purchased multiple times throughout the year from the same vendor. The Maintenance Division purchased paint at full price from the same vendor 37 separate times although the vendor offered a discount for bulk purchases.

Almost 25 percent of purchases cost more to process than the cost of the item

- Making multiple purchases of the same item increases labor costs associated with processing multiple invoices and diverts shop employees' time from maintenance work to purchasing work. Almost 25 percent of all Maintenance Division invoices cost more to process than the cost of the items purchased. This figure is based on an estimated cost of \$52.70 to process each invoice (see calculation in Appendix B) and 828 invoices that the Port processed in FY 2005-06 that were valued at less than \$52 each. It cost the Port \$44,000 to process these invoices, which had a total value of \$23,000.

Items are purchased but not used

- Shops buy unneeded items.
 - During our walk-through of Maintenance Division facilities, we saw four outboard motors that were purchased for \$8,000 but were not currently being used.
 - A superintendent purchased six digital cameras and accessories worth \$2,900 even though the shops already owned several digital cameras. The shop superintendent justified this purchase because funding was available in the "Other Office Supplies" account.

Items are rented for more than they would cost if purchased

- Items are rented for more than they would have cost if purchased. The Maintenance Division rented a portable air conditioner unit in 2006 for \$8,000, although the item could have been purchased for less than \$4,600.

Items are repaired when it may be less expensive to replace them

- The Maintenance Division spent almost \$120,000 to repair tools and equipment in FY 2005-06 and the first half of FY 2006-07, although it might have been more cost effective to replace the items. Individual shops, rather than management, decide whether to repair or replace tools and equipment without any written guidance.

Shops make purchases without appropriate oversight

- The shops made purchases without going through the appropriate approval process. At the end of FY 2005-06, the shops submitted over 400 unpaid invoices that they had held for no apparent reason. The invoices totaled \$350,000 and were for payment of "urgent" purchases made throughout the fiscal year. The Port defines these purchases as those that are less than \$200, needed that day, and do not require a

purchase order. These invoices averaged \$875 each, which clearly exceeded the limit for purchases without a purchase order. According to Port management, there was no documentation to indicate the jobs or projects associated with these purchases or why the purchases were considered to be urgent.

Shops purchased goods not budgeted

- The shops bought items not provided for in the Port's budget. The Maintenance Division purchased over \$800 of coffee goods during FYs 2005-06 and 2006-07 even though the City does not provide funds in the budget for this type of expenditure. Employees usually make this type of purchase through collaborative and informal "pitch-in" agreements. The Port approved and paid for these purchases.

The Maintenance Division purchases unauthorized items under blanket purchase orders

The City has established blanket purchase orders (blankets)⁴ with vendors. Each blanket includes a list of specific items that can be purchased through the blanket. The Maintenance Division charges some of its purchases against blankets even though the blankets do not allow the specific items being purchased. The City has a blanket for propane, but instead of using the approved vendor, the Maintenance Division used a blanket with another vendor 29 times in FY 2005-06 to purchase \$1,666 worth of propane, which is not an approved item on the blanket that was used.

The blanket that was used states:

City Departments are not authorized to order, and the vendor is not authorized to supply, any other items under this City Blanket Authorization. If the vendor fills any such orders, the City will not pay the invoices.

The Maintenance Division's purchases of propane through the unauthorized vendor meant that both the Maintenance Division and the vendor violated City policy and the contractual agreement established through the blanket. Despite this, the City paid the unauthorized vendor for all of the propane that the Maintenance Division purchased.

⁴ Citywide blanket purchase orders are used for purchases involving large quantities, recurring purchases and for commodities or services in common use by more than one department.

As we were researching this issue, we contacted the unauthorized vendor, and a representative stated that in the future, it would charge the City \$2.50 for propane, which is \$0.43 less, per gallon, than the Maintenance Division paid on previous orders. This difference in pricing further demonstrates the need to take advantage of approved blankets with negotiated prices and bulk discounts.

The Port needs effective purchasing controls

Effective purchasing controls would include:

- Limiting responsibility for initiating purchases to the shop supervisors, superintendents, and the Maintenance Division director.
- Planning each job's tool, supply, and equipment needs in advance.
- Prohibiting purchase of tools, supplies, and equipment that are not called for in the work plan unless authorized by the superintendent or deputy director.
- Comparing the estimated cost to repair an item over the remaining life of the item with the cost to replace the item over the expected useful life of the new item.
- Imposing disciplinary action against employees for noncompliance with established purchasing policies and procedures.

Attempts to correct deficiencies in purchasing practices have not been effective

The Maintenance Division attempted to correct specific deficiencies after the Board of Supervisors Budget Analyst identified some of these practices in its 2004 audit of the Port. The deputy director established a policy requiring his preapproval of all purchases after receiving the high volume of unpaid invoices at the end of FY 2005-06 and identifying unauthorized purchases such as the digital cameras and coffee. The deputy director also requested that all of the digital cameras be turned in to him and required an employee who bought coffee to pay for it personally.

However, many of these practices have continued despite management's efforts. This may be a result, at least in part, of management not consistently enforcing disciplinary action and because there is a culture of resistance among Maintenance Division employees. Shop employees continue to circumvent procedures by purchasing items without prior approval and subsequently submitting invoices and other required documentation for payment to the deputy director. An employee will ask a vendor to hold an

invoice until the shop gets formal approval and a purchase order (PO) number. The employee then submits the invoice as a quote, along with a purchase request, to the deputy director even though the shop has already purchased and received the items.

Requisition and Approval System (RAS) being developed for Department of Public Works could resolve Port's purchasing issues

During the audit, we observed a demonstration of the new Requisition and Approval System (RAS) that the San Francisco Department of Public Works (DPW) is developing for its use. The system design includes features that would eliminate many of the purchasing control weaknesses that we found at the Port, such as allowing:

- Orders to be placed only with approved vendors that have a blanket or contract with the city.
- Purchases only of items specified in active blankets or contracts.
- Purchases only by authorized individuals.
- Purchases to be made only if a job or work order is specified.
- Purchases to be completed only after approval is given by authorized individuals.
- Notification to vendors that if receipt of the items is taken prior to completion of the purchasing process, the vendor may not be paid.

In addition, RAS maintains a history of purchases made that would facilitate future planning, thus allowing the department to negotiate bulk purchase discounts based on estimated need and to reduce the number of direct payments.

Recommendations

Port management should require the Maintenance Division to:

1. Coordinate with DPW to implement RAS, or other comparable software, within the Port Maintenance Division.

2. Establish clear written policies and procedures regarding the types of purchases allowed, who is authorized to make purchases, and the approval process.
3. Establish criteria for determining whether repair versus replacement, or rent versus purchase, is the most cost-effective approach to meeting the Maintenance Division's needs.
4. Use historical knowledge of purchases and planned projects and workload to plan future purchasing needs, and establish additional blanket purchase orders, as appropriate.
5. Require persons authorized to initiate purchases to be familiar with and use established blankets to take advantage of the City's purchasing power and to ensure that only authorized purchases are made under the blankets.
6. Develop and consistently implement procedures to impose discipline on employees who do not comply with the policies and procedures. The procedures should include a requirement for employees who make unauthorized purchases to receive a written reprimand and pay for the items purchased, up through suspension and termination for repeated offenses.

Finding 1.2

The Maintenance Division's purchasing practices allow vendors to overcharge because invoice prices are not regularly compared with quoted prices

Prices charged are not compared to quoted prices

The Maintenance Division pays the invoice amounts of its purchases without always comparing the prices on the invoices against the prices on the contracts, purchase orders, or vendor quotes. This practice increases the risk of overcharge.

Invoice amounts sometimes differed from quoted prices

In several instances, a vendor's invoice price differed from the quoted price. For example, the Port was quoted \$387 for fencing hinges but the invoice amount was \$470. We also found that unexplained discounts were given causing the invoice price to be less than the quoted price.

Overcharging on invoices is a common purchasing fraud scheme

Not comparing invoiced amounts with quoted prices allows vendors to overcharge, since the Port relies on the vendors to bill correctly. Overcharging on invoices is also a common indicator of purchasing fraud. A recent report by the Association of Certified Fraud Examiners⁵ indicated that 43 percent of corruption cases involved bribery, such as employees processing inflated invoices from a vendor in return for a percentage of the invoice price as a kickback. The Port is at risk for this type of purchasing fraud scheme because it has not established procedures requiring that invoice amounts be verified with quoted prices to prevent overcharging. The Port's decentralized purchasing approach further exacerbates this risk since shops deal directly with vendors of their choice, frequently ignoring the established purchasing agreements.

Recommendations

Port management should require the Maintenance Division to:

7. Designate staff who do not order goods to review all purchase requisitions for reasonableness of the purchase need and the price.
8. Establish written procedures to prevent overcharging by requiring staff who process invoices to compare the invoice price for each line item with the contracted or quoted price. When discrepancies are identified, staff should notify the vendor of the discrepancy and request a corrected invoice.
9. Coordinate with vendors who regularly charge other than the agreed-upon prices to identify corrective actions that can be taken to prevent future overcharges.

Finding 1.3

The Maintenance Division's receiving procedures increase the risk of purchasing fraud and vendor collusion

Storeroom does not verify accuracy or condition of shipments received for shops

Until mid-2006, shop employees either picked up materials from vendors or had materials delivered directly to the shops. In 2006, the Maintenance Division implemented a policy requiring shop purchases to be delivered to the

⁵ The Association of Certified Fraud Examiners, Annual Report to the Nation on Occupational Fraud and Abuse, 2006, p. 17.

storeroom. Although most shop purchases are now delivered to the storeroom, this policy change did not improve controls over materials because storeroom staff do not:

- Open packages and count the items to reconcile with the packing slip.
- Verify the items and quantities received and the invoiced prices against the approved purchase orders.
- Check the items for damage.
- Enter the items in the inventory tracking system (see related discussion in Finding 2.1).

The storekeeper also does not always know who placed the order or what was actually ordered, making it difficult to accomplish these tasks in an effective manner. Some materials sit in the storeroom for lengthy periods of time because the storekeeper does not know who purchased the materials. The storekeeper recalled that a set of benches and tables sat in the storeroom for three to four months before someone came to get them.

Timeliness in identifying damaged goods or shortages may affect whether vendor will correct the invoice amount billed

If the storeroom receives damaged goods but does not reject them, the vendor may later refuse to accept returned items upon discovery of the defects. It may also be difficult for the Port to obtain a price adjustment when a shortage on a shipment is discovered subsequent to the date the storeroom receives the goods.

Some shops disregard policy for goods to be delivered to storeroom

Maintenance Division management stated that, in clear violation of the 2006 policy requiring all items purchased to be delivered directly to the Pier 50 storeroom, some shop employees still pick up items directly from vendors and some vendors still deliver items directly to the shops. This practice violates a fundamental tenet of internal controls regarding the segregation of duties between those who purchase and those who receive goods. Allowing the same person to purchase and receive goods greatly increases the risk of purchasing fraud and vendor collusion, because the person buying and receiving the goods can walk away with the item with no check and balance to prevent theft.

Recommendations

Port management should require the Maintenance Division to:

10. Provide formal training on internal controls over purchasing and the inventory process to all Maintenance Division employees who have responsibilities in these functional areas. Specifically, the training should discuss appropriate segregation of duties, the reasons for segregation of duties, and the procedures required for timely identification of discrepancies in shipments and invoiced amounts.
11. Establish and implement a policy that requires all deliveries of goods to be made through the storeroom. Prohibit shop employees from accepting direct deliveries of goods at the shops and from picking up routine purchases at a vendor's place of business. Post signs that are visible at all gate entrances and all of the shops to notify vendors that all deliveries are accepted only at the storeroom at Pier 50 and that vendors will not be paid if deliveries are made elsewhere.
12. Provide copies of all purchase orders to the storeroom. Establish, implement, and monitor storeroom procedures to ensure that, at a minimum, storeroom staff open and inspect all deliveries of materials and match the shipment with the approved purchase order or blanket to ensure that the:
 - Correct items were received
 - Correct quantities were received
 - Items are not damaged
13. Establish and consistently implement procedures to impose discipline on employees who violate the policies established as a result of these recommendations.

Finding 1.4

**122 invoices from
FY 2004-05 averaged 138
days to be paid**

*Port lost prompt payment
discounts on 8 of 11 invoices
we reviewed*

The Maintenance Division took an average of 56 days to pay vendors, which caused it to miss prompt payment discounts

The Maintenance Division took an average of 56 days⁶ to pay its vendors in FY 2005-06, which included 122 invoices received in the previous fiscal year that took an average of 138 days to be paid. These timelines caused the Port to miss prompt payment discounts offered by vendors. The Port lost \$100 of \$209 offered as prompt payment discounts because it paid only 3 of 11 invoices that we reviewed within the discount period.

It is common practice for government organizations to require its agencies to pay vendors promptly. The federal government and California state government require that their vendors be paid within 30 days and 45 days, respectively, of receipt of the invoice, or that interest be paid to the vendor for late payment. However, the Port does not have procedures to ensure that it pays vendors promptly, which causes excessive delays in making payments and lost prompt payment discounts.

Although not in effect during the review period for this audit, the Office of the Controller recently issued Prompt Payment Guidelines to City departments to encourage timely payments to their vendors. These guidelines encourage departments to create payment policies and procedures to foster prompt payment.

Recommendations

Port management should:

14. Develop written policies and procedures, based on the Office of the Controller's Prompt Payment Guidelines, to ensure that vendor payments are made within the discount period and that all other invoices are paid within 30 calendar days of receipt of an accepted invoice.

⁶ From invoice date to the date the invoice was entered into the Port's Oracle Financial System. It typically takes a few more days after the entry is made into the Oracle system to go into the City's FAMIS system and generate a payment.

15. Establish performance measures for the Maintenance Division to gauge purchasing efficiency and effectiveness. Appropriate measures might include:
- Percentage of invoices with a prompt payment discount that are paid within the discount period
 - Percentage of invoices without a prompt payment discount that are paid within 30 calendar days of the invoice date
16. Require that all invoices be mailed directly to the accounting office at Pier 1. Require accounting staff to establish procedures, such as using a tickler file and stamping invoices that offer a discount with a "discount" rubber stamp, to ensure that all invoices with a prompt payment discount are quickly identified and processed to ensure payment is made within the discount period and that all other invoices are paid within 30 calendar days. On a monthly basis, identify any discounts missed and late payments made, discuss with accounting staff the reasons why invoices are not paid promptly, and identify corrective actions to its performance goals.
17. Require Port accounting staff to compare invoices with the purchasing and receiving documents, as the final control in the process, to ensure that proper authorization was obtained for the purchase and that the correct prices were charged.

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Chapter 2 – Materials Management

Summary

The Port Maintenance Division does not follow best practices for inventory management:

- It tracks routine purchases in the Avantis Facilities Maintenance Management System,⁷ but the inventory records are inaccurate and incomplete. The records include both overages and shortages and do not include materials purchased by individual shops or for capital projects, or items acquired outside the regular purchasing process (e.g., historical items).
- It does not have an effective system to monitor the distribution and use of materials stored outside the physical space of the Pier 50 storeroom.
- It uses only eight percent of the items that it keeps as inventory in the storeroom.
- It does not maintain complete and accurate lists of its tools and equipment or a process for tracking where its tools are at all times.

Without an effective inventory management system, there is little or no accountability for these materials, which puts them at risk for theft, loss, deterioration, and mismanagement, all of which have occurred. The lack of an effective inventory management system also prevents the Maintenance Division from having the information required to make effective budgeting, operating, and financial management decisions regarding its inventory and ensuring accurate reporting of inventory in the Port's financial records.

Because of the extent of errors in the Maintenance Division's inventory records, we were unable to estimate the total quantity and value by which these records are misstated and instead provide specific examples to support our findings.

⁷ Avantis is a computerized maintenance management system (CMMS) that provides full capability preventative maintenance, predictive maintenance, and reliability centered strategies as well as traditional maintenance planning and decision support.

Finding 2.1

The Maintenance Division's inventory of materials faces a high risk of theft and loss because the division does not have an effective inventory control system

Inventory of storeroom materials is inaccurate

The Maintenance Division tracks the routine purchases of materials that the storekeeper is responsible for managing as inventory in the Avantis Facilities Maintenance Management System. The tracked inventory is both inaccurate and incomplete, as it includes both shortages and overages⁸ and does not include materials purchased for capital projects or the shops' direct purchases. These deficiencies reduce accountability over inventory, putting the materials at risk for theft, loss, deterioration, and mismanagement. Not maintaining a complete and accurate inventory is a serious concern, given that there have been both allegations and known instances of loss and theft of Port materials.

Our physical counts matched the storeroom inventory lists for only 12 of 22 items

We randomly selected 23 items from the 877 items on the storeroom's inventory list to determine the accuracy of the counts in Avantis. One item, hex nuts, comes in bulk and its quantity is estimated based on weight, but there was not a calibrated scale available for us to weigh them. Of the remaining 22 items, only 12 (55 percent) of the counts recorded in Avantis matched our physical counts. Three items had more quantities than what the inventory showed, and seven items had fewer quantities. We only counted one pallet of pile guard wraps because they were large and unwieldy, but we counted fewer wraps on that pallet than the amount shown on a sheet attached to the pallet. Exhibit 1 shows the variances, both in quantity and value.

⁸ Shortages are when the Avantis system shows fewer items than are actually on hand; overages are when the Avantis system shows more items than are actually on hand.

EXHIBIT 1**Comparison of Auditor Inventory Counts to the Maintenance Division's Inventory Records**

Item	Avantis Count	Auditors' Count	Variance	Value of Variance
Shortages:				
Piles, New Chemonite, 65'	216	236	20	\$15,561
Acetylene Gas, 130 Cubic Foot Canister	9	10	1	6
Wire Spikes, 5/16" x 7", 50 Per Box	158	162	4	<u>76</u>
SUBTOTAL				\$15,643
Overages:				
Pile Guard Wrap, 16' x 72" Roll ¹	223	195	(28)	(\$2,744)
Lumber, D.F. Treated, 4" x 12" x 24' Length	782	517	(265)	(28,737)
Conduit, E.M.T., ½" x 10'	663	662	(1)	(19)
Fluorescent Lamps, F40-T12-CW	14,550	11,033	(3,517)	(2,849)
Cable, ¾", 6 x 19, Steel Core, 500' Reel	2.5	1.5	(1)	(575)
NaturClean #33, 50-lb. Bucket, Water Soluable ²	4	3	(1)	(423)
Nail, Roof, Big Head, 2	6,000	0	(6,000)	<u>(4,400)</u>
SUBTOTAL				(\$39,747)
TOTAL				(\$24,104)

Notes: ¹ The pallet of pile guard wraps we counted was labeled as having 223 of the 965 wraps shown in the inventory, but it had only 195. The variance may have differed if we could have counted all of the pile guard wraps.

² The storekeeper stated that one of the shops had taken this item out of inventory, but Avantis was not updated to reflect that.

Source: Inventory list from the Avantis system and physical inventory counts by audit staff.

*Results are consistent with
2004 audit*

Our results are consistent with the 2004 audit of the Port by the Board of Supervisors Budget Analyst, which found that the Maintenance Division did not have an accurate inventory of what was in its storeroom. In that audit, the Budget Analyst identified variances in the inventory counts for seven of the nine items they counted. The Maintenance Division has made improvements since that audit, particularly with regard to the organization, cleanliness, and cyclical counts of its storeroom. However, it has not achieved the intended outcome of the audit recommendations to transform the storeroom "into one that has effective inventory control" or to develop a policies and procedures manual to govern its materials management functions.

*Storeroom staff could not
explain cause of variances
between physical inventory
counts and inventory records*

The storekeeper was unable to adequately explain the reasons for most of these variances. Storeroom staff count everything in the storeroom at least annually, which is a

best practice used to provide reliability of the on-hand inventory quantities and to increase operational efficiency. However, when a variance occurs, they update the count in Avantis without adequately researching why it occurred. The missing items could have been miscounted, used on a job, misplaced, or stolen.

Difficulty in monitoring items stored outside the storeroom increases risk of loss or theft

In some cases, the variances likely occurred because shop personnel took materials for jobs without notifying the storeroom of what has been taken or the job for which they were taken. This is particularly true for large, bulky items such as lumber, which are recorded in Avantis but stored outside of the physical space of the storeroom, making them more difficult for the storeroom manager to physically track. The materials involved here can be expensive, such as lumber valued at over \$55,000, and thus justify close monitoring to ensure accurate inventory counts and reduce the potential for these materials to be lost or stolen.

Inventory best practices recommend researching the cause of variances to reduce risk of loss and theft

Variances may indicate that something is wrong with the inventory system or the warehouse operations that affect inventory balances. In its study of seven leading-edge private sector companies, the GAO identified the need to promptly research the cause for variances between physical counts and inventory records as a key factor of inventory best practices. The research process includes performing analysis to identify the root cause of variances and referring the results to management for approval and/or to security for investigation, and identifying and implementing corrective actions to reduce the risk of loss and theft.

Capital project materials and shop purchases not tracked as inventory or systematically stored

The storekeeper is not responsible for materials purchased for capital projects or the shops' direct purchases, and the Maintenance Division does not track these materials as inventory either in Avantis or on lists at the shops. Contrary to best practices, which require the tagging and assignment of location codes to all inventory items, the shops also do not maintain an inventory of the materials they purchase and many are not systematically stored.

Not tracking these materials as inventory is a serious concern given that there have been both allegations and known instances of loss and theft of Port materials. In mid-2006, a large amount of high voltage copper wire was

stolen from Building 4 at Pier 70. However, because this material was not tracked as inventory, management could not determine either the amount or value of wire that was stolen. Further, not tracking these materials as inventory:

- Increases the risk of unnecessarily buying materials that are already on hand.
- Increases storage and maintenance costs for unneeded purchases.
- Increases the risk of theft of Port materials.
- Results in an understatement of inventory on the Port's financial statements.

Materials ordered for capital projects or by the shops are generally delivered to the storeroom but are stored in areas that are separate from the inventory that is tracked in Avantis for the storeroom. There is often no information on these materials to identify which shop ordered them, so the storekeeper sets these materials aside until a shop comes to claim them, which he said may be weeks or months. Materials for capital projects are sometimes specifically labeled as "not part of inventory." The shops keep leftover materials from a job rather than returning them for a refund or to the storeroom inventory, and store the excess materials without tracking them in any formal manner. This causes an overcharge to the job for which the materials were purchased and an undercharge on the job for which the excess materials are later used. Exhibit 2 shows examples of capital project and shop materials deliberately left out of the inventory system.

EXHIBIT 2 Examples of Materials Not Tracked as Inventory



Capital Project Materials
*Tag on boxes says,
"SPECIAL PROJECT
NOT PART OF INVENTORY"*



Shop Materials

Source: Picture taken by audit staff during walkthrough of Port maintenance facilities.

Materials at shops not all systematically stored; can create workplace hazards

The shops do not have a systematic and consistent process for storing many materials, and it is common to find shop materials scattered on floors and roofs, in storage rooms, at other piers, and outside. These materials are often commingled with obsolete items, as well as with personal items that should not be stored at the Port. Disorderly work spaces and materials lying on workspace floors can easily contribute to accidents and injuries of employees and visitors. Exhibit 3 shows examples of the disorderly storage of some shop materials.

EXHIBIT 3 Example of Shop Purchases Not Systematically Stored



Source: Picture taken by audit staff during walkthrough of Port maintenance facilities.

Lack of an effective distribution system increases risk of theft

The Maintenance Division uses a pick list⁹ process to issue materials from the storeroom. However, there is not a systematic process for distributing and monitoring the use of materials purchased for capital projects or for the shops, or for materials that are kept in Maintenance Division vehicles. Shop employees can take items as needed, without documenting what they took or the project for which the materials will be used.

The lack of an inventory tracking and distribution system significantly increases the risk that materials will be lost or stolen because no one is accountable for protecting these assets. Allowing employees to take materials at will increases the risk of employee theft. This opportunity is further increased because Port employees are allowed to park their personal vehicles in the maintenance yards, which can make it easier to take Port materials without being noticed (see related discussion in Finding 3.2). One example of the effects of this lack of accountability is the purchase of the six digital cameras cited in Finding 1.1. When the deputy director of the Maintenance Division learned that the cameras had been purchased without his approval, he requested that they all be turned in to him. However, he had to make a general request to all employees because there was not a record of who had each camera, and no one could immediately locate one of the cameras.

⁹ A pick list is a preprinted list of items available in inventory that workers use to select the items they need. The storeroom workers use the list to pull the selected items from inventory.

Inventory best practices recommend that a paper trail accompany each item entering and leaving inventory, including signatures of those on each side of the transaction and a description of the items involved. Standard internal controls for inventory distribution include:

- Requiring the user to request materials in a manner that can be easily tracked (e.g., prenumbered forms) and properly authorized.
- Using the request to pick items from the inventory, checking off each item as it is removed, and drawing from the oldest inventory first.
- Updating the inventory to note the quantity of each item removed.
- Requiring unused items to be returned to and logged back into inventory.
- Adjusting job records to reflect the actual quantity used.
- Documenting damaged goods returned.

Recommendations

Port management should require the Maintenance Division to:

18. Develop a comprehensive, written policies and procedures manual to govern management of all Maintenance Division inventory. The manual should incorporate best practices for inventory management (we recommend drawing concepts from the GAO *Executive Guide*) and should cover topics such as:

- Inventory records.
- Tagging inventory.
- Inventory locations and storage.
- Withdrawal of materials from inventory.
- Returns and credits.
- Disposition of unneeded inventory.

Specific requirements for key policies and procedures are addressed in the following recommendations:

19. Track all Maintenance Division materials in a centralized inventory, including shop and capital project materials that are not currently tracked as inventory.
20. Develop a methodology for tagging inventory and apply inventory tags to all materials.

21. Establish location codes for all materials, including those designated for capital projects, and store all materials in an orderly manner based on these codes. Use secure locations, such as locked, fenced off areas, for bulky items that are too large to keep in the storeroom.
22. Conduct a complete physical count of materials currently on site:
- Include all materials in the storeroom, in the shops, in vehicles, set aside for capital projects, and laying on Port property.
 - Establish an objective measure (e.g., weight, with a conversion to unit count) for difficult to count items, such as nuts and bolts, prior to conducting counts.
 - Segregate the materials by whether they are usable and needed, usable but not needed, or unusable (either because of their condition or obsolescence).
 - Tag all usable and needed materials and store in a systematic manner based on location codes.
 - Coordinate with the General Services Agency to transfer all unusable and usable but not needed materials to another City department or to the City's approved vendor for auction of excess inventory as appropriate.
 - Update the inventory records to reflect the results of this effort.
 - Forward the updated inventory information to the Port's accounting staff to adjust inventory in the general ledger.
23. Require employees to use prenumbered forms, obtain a signature from an authorized manager, and cite the work order for which the materials will be used to request withdrawals of materials from inventory.
24. Promptly update the inventory as materials are added or removed from inventory.
25. Return to and log back into inventory all materials leftover from a project/job, and adjust the work order to reflect the returned materials. If returned materials are not needed for future work, return them for a refund when that is an option or dispose of them in accordance

with the City's guidelines for disposal of surplus materials.

26. Establish a schedule and a protocol for regular and frequent physical counts of Maintenance Division inventory. Require storeroom staff to perform cyclical inventory counts and to identify and dispose of unneeded or unusable items in accordance with established procedures.
27. Require storeroom staff to research all inventory count discrepancies to determine their cause, and report the results to management to determine what corrective action is needed to resolve the identified discrepancies and prevent future discrepancies.
28. Report all suspected theft of inventory to the San Francisco Police Department for investigation.
29. If weight is used as the counting method for any items, purchase and keep on hand a calibrated scale and ensure that the scale is regularly calibrated according to the manufacturer's recommended schedule.
30. Determine what frequently-used items, if any, are appropriate for shops to hold in their own inventory. Require these items to be run through the storeroom inventory and signed out to the shops using the established procedures for issuing materials and allocating their costs to specific projects. Require the shops to follow similar processes for storing and checking materials out to employees for use on projects, including materials stored in vehicles, to ensure accountability over these items.
31. Provide training to staff on standard inventory management practices and the Maintenance Division's policies and procedures regarding inventory management.

Finding 2.2

The storeroom has seven years of inventory; over 25 percent not used in almost two years

Only 71 of 877 storeroom items are frequently used; 241 items not issued at all

The Maintenance Division retains many items in the storeroom that are infrequently or never used because its

inventory management system does not provide information required to make effective budgeting, operating, and financial management decisions. Only 71 (8 percent) of the 877 items in the storeroom were used more than 10 times between July 1, 2005, and April 9, 2007, and 241 (27.5 percent) items were never issued.

These infrequently used items contributed to a low inventory turnover rate¹⁰ of only 0.14 turns per year, or seven years of inventory, for the one-year period beginning in April 2006. Although the turnover rate has improved since the Board of Supervisors' Budget Analyst reported in April 2004 that the Maintenance Division had 11.2 years (0.09 turns per year) of inventory, the current rate is still unacceptably low. To compare, the San Diego Port requires a minimum of eight turns per year to qualify an item for storeroom inventory. Further, the Budget Analyst's audit report cited much higher turnover rates for other City storerooms—17 months (0.71 turns per year) for the Water Supply and Treatment Division and 8.6 months (1.4 turns per year) for the Hetch Hetchy storeroom of the San Francisco Public Utilities Commission.

Storing slow-moving or unused items means that the Port is incurring unnecessary costs to store items that should be liquidated. Also, materials stored for lengthy periods tend to lose value because they become obsolete and deteriorate. The storekeeper estimates that the storeroom uses 75 percent of its physical space for items that are never or only rarely used or are obsolete. Conversely, items that routinely move through the storeroom are smaller, everyday goods such as bottled water,¹¹ rags, gloves, and batteries.

Excess inventory not disposed of as required by City guidelines

Although many of the items in the storeroom are not needed or have become obsolete, the Maintenance Division has kept these items for years. This is contrary to inventory best practices, which recommend eliminating excess stock to open up shop floor space, keeping staff informed as to

¹⁰ Turnover rates are a common method for determining whether an organization is maintaining an appropriate level of inventory. Turnover is often expressed as the average number of "turns" (i.e., number of times the inventory is completely used up during a period of time) or average length of time (e.g., days) that purchased stock remains in the inventory. Low turnover is generally a sign of operating inefficiencies because more materials are kept on hand than are needed.

¹¹ The Office of the Mayor issued Executive Directive 07-07 in June 2007 to permanently phase out bottled water purchases in City departments. As a result, the Maintenance Division should reduce the space it uses in its storeroom for this purpose.

how much stock is actually on hand, and preventing overinvesting in inventory. It is also contrary to the City's surplus regulations, which require obsolete items to be disposed of in a manner that will maximize the City's economic return or prevent items from going into a landfill by transferring them to another department or organization for reuse. As a guideline, the San Diego Port disposes of its unneeded materials three times per year. The City's General Services Agency provides resources, such as a virtual warehouse to advertise items available for reuse and a contract for public auction of excess inventory, to assist departments in their efforts to dispose of surplus goods.

Recommendations

Port management should require the Maintenance Division to:

32. Establish and implement guidelines for items that may be purchased for routine inventory based on frequency of use and the division's capacity for securely storing materials.
33. Establish and implement guidelines for replenishing items routinely held in inventory, with a goal of maintaining a balance between having sufficient inventory on hand to meet user needs and storing seldom-used inventory.

Finding 2.3

The Maintenance Division shops do not maintain complete and accurate lists of its tools and equipment nor have a process for tracking where its tools are at all times

The Port maintains a centralized list of its tools and equipment valued at or greater than \$5,000 as required by City guidelines, but the list is not complete. In addition, 12 of the 16 shops maintain inventory lists for lower-cost items, but not all items are included on the lists because there are no criteria regarding the type or minimum value of items to include on the lists. The shops also track different types of information for each item. Further, the Maintenance Division does not have a structured process for distributing tools and equipment to staff for use in the field. The Maintenance Division's lack of accountability over these assets makes them highly susceptible to loss or theft, and

can reduce the ability to manage the budget, cause project delays and lost time and productivity if the proper tools and equipment are not available, and prevent effective management of tool inspections and calibrations.

Fixed assets were not all tracked as required

We identified two recently-purchased pieces of equipment that the Port had not added to its asset list although the items exceeded the \$5,000 threshold for assets that are required to be tracked as depreciable assets. The first item was a rock drill that was purchased in July 2006 for almost \$10,000, and the second item was a truck-mounted arrow board with an electric power lift that was purchased in February 2006 for \$5,300. These amounts, though not material to the Port's financial statements, resulted in the Port understating the value of its assets on its financial statements. Not tracking all required items as assets also means that the Port is not fully compliant with governmental accounting requirements for reporting assets on its financial statements. We did not do a full analysis of the Port's inventory of assets to determine the extent to which assets were not tracked as required.

Assets valued at less than \$5,000 not consistently tracked

We reviewed the lists of assets for items valued at less than \$5,000 — generally small tools and equipment — that some of the shops maintain and found considerable variations regarding what was tracked:

- The lists do not include serial numbers and other identifiers, such as part number, price, and purchase date, for many items.
- Some shops tracked items valued at \$250 or more, others tracked items valued at \$300 or more, and others did not track these items at all.
- Some of the lists were not updated to include recent purchases or to annotate the disposition of items that had been turned in to management, retired, lost, or become unusable.
- Where lists did exist, some were handwritten while others were on spreadsheets. The spreadsheets were stored on the Port's shared drive, which is accessible to all employees and could be easily opened and changed by any Port employee. This is a concern because someone could steal an item and remove it from the list to prevent the theft from being detected.

The shops also do not mark all tools and equipment as Port property.

We located only 67 percent of tools and equipment from the inventory lists and 43 percent of recent purchases from our sample

To determine the accuracy of the shops' lists of tools and equipment, we selected 55 items to count; we

- Located 37 items (67 percent).
- Could not locate 11 items (20 percent), including a dynamo meter, two digital cameras, a sewer camera, a chainsaw, and an electric snake. Shop records showed that one digital camera was purchased for \$760 and the other was purchased for \$737, and the chainsaw was purchased for \$650; but the shop records did not include the purchase price for the other items.
- Potentially located 7 (13 percent) items. These items matched the description, but the shop records did not include specific identifying information, such as serial numbers, that would have allowed us to confirm that the items were the ones on the lists.

We also identified several items during our facilities walkthrough, including those shown in Exhibit 4 below, that the Maintenance Division did not know it had.

EXHIBIT 4 Examples of Tools and Equipment not on Port Asset List



SURVEILLANCE CAMERAS

Four unopened boxes in the Gardening Shop contained new internet surveillance cameras. The shop employees and deputy director were unaware that these cameras had been purchased or why, although the cameras had been purchased at least two years prior.



PIPE LOCATOR

A large case hidden from view behind other items on an upper shelf in the Plumbing Shop contained a pipe locator that looked brand new.



UNOPENED CRATE

A crate in the Plumbing Shop had not been opened although the date stamp showed the crate was received on November 16, 2005. The Maintenance Division paid three-day priority shipping for the 101-pound item.

Source: Pictures taken by audit staff during walkthrough of Port maintenance facilities.

No systematic process for tool and equipment issuance and return

The Maintenance Division also does not have a systematic process for tool and equipment issuance and return. Instead, shop employees take tools and equipment as needed without using any check-out system. There are also tools in some Maintenance Division vehicles, but there is not a list of the items in each vehicle. Although some shops secure more expensive tools and equipment in storage closets and sheds, employee memory is the only method the Port has for knowing the location of its tools and equipment.

Tools and equipments are at risk for loss or theft

The Maintenance Division's lack of accountability over its tools and equipment puts these assets at risk for loss or theft. This can lead to other less visible costs, such as an inability to manage budgets, project delays, and lost time and productivity, if the proper tools and equipment are not available, and ineffective management of tool inspections and calibrations. Theft and other losses could go undetected because the Maintenance Division does not know all of the tools and equipment it owns or their value. Further, it is not likely that lost or stolen tools would be returned if they are later found since they are not all appropriately labeled as Port property. In addition, not having a tool tracking system limits the ability to order tools with any savings plan in mind because the Maintenance Division does not have historical knowledge of its purchasing and usage patterns for these items.

Strong internal controls are the best tool for preventing and detecting theft

A 2003 report conducted by Ernst & Young stated that 85 percent of all industrial theft is perpetrated by employees. The report also states that the best tool for preventing theft and detecting it if it does occur is a strong system of internal controls. For the Maintenance Division, that would include maintaining a current list of tools and equipment and establishing a system for issuing tools.

A key internal control for tool management is to know where all your tools are. One tool management expert has identified 10 rules for accomplishing this, based on the concept of using a centralized tool crib and tracking system:

- 1) Control access to the crib; put a lock on the door.
- 2) Organize the storage cabinets/shelves; use location names or tags.
- 3) Record all tool issues and returns in the system.

- 4) Involve the crib personnel in planning the tool control project as they can provide information critical to building the tool database.
- 5) Train all crib personnel; provide at least two competent system administrators for overall system control.
- 6) Establish guidelines for returning tools to the crib for reworking, scrapping, or return to its location.
- 7) Review purchasing procedures so that piecemeal ordering is the exception rather than the rule.
- 8) Establish rules for defining what are perishable (i.e., consumed by use) or durable (i.e., not consumed by use) tools and if they are expected to be returned to the tool crib.
- 9) Establish rules for reordering perishable and durable tools.
- 10) Agree on a tool numbering system and stick to it; use discrete and individual identifications to distinguish one item type from another.

This expert also recommends using a committee to develop the tool management system to address the various situations that occur daily with tool use and that contribute to tool management problems.¹²

Applying these concepts within the Maintenance Division can also increase employees' accountability for the tools they use in their work and ensure that tool costs are properly allocated to their respective projects.

\$100 is a reasonable threshold for tracking assets

The Port does not have a specific requirement to track assets valued at less than \$5,000. However, it can apply recognized practices from the public sector to improve its management of its assets. Although not specifically applicable to government entities, the Sarbanes-Oxley Act of 2002 requires public companies to account for all assets valued at more than \$100, a threshold that many tools and most equipment meet. This criterion provides a reasonable basis for the Maintenance Division to track its tools and equipment to improve management of its assets and prevent losses of its lower cost, but theft-sensitive, tools.

¹² Plute, Martin, The Basics of Tool Management, <http://www.moldmakingtechnology.com/articles/010205.html>

Recommendations

Port management should require the Maintenance Division to:

34. Develop a written policies and procedures manual to govern management of all Maintenance Division tools and equipment. The manual should provide guidance on how to implement the City's requirements for tracking fixed assets as well as assets valued at less than \$5,000. The manual should incorporate best practices for tool tracking control to ensure the Maintenance Division knows all the tools it has at all times, including where the tools are, rather than only an inventory of tools that have not been issued. The manual should cover topics such as:

- Tool and equipment records
- Tagging tools and equipment
- Locations and storage of tools and equipment
- Withdrawals of tools and equipment from inventory
- Returns
- Disposition of unneeded tools and equipment

Specific requirements for key policies and procedures are addressed in the following recommendations:

35. Expand the existing database maintained for Port equipment valued at over \$5,000 to include all tools and equipment valued at \$100 or more. Identify and add any fields needed to ensure that tools can be easily identified and tracked.

36. Develop and implement a methodology for clearly identifying and tagging all tools and equipment (e.g., tags stating serial numbers and "Property of the Port of San Francisco"). Consider use of an automated tracking system such as bar coding or radio frequency identification (RFID).

37. Establish centralized locations to store all tools and equipment. Assign responsibility for overall management of tools and equipment. Use a tool crib for smaller items and other secure locations such as locked, fenced-off areas, for bulky items that are too large to keep in the tool crib. Establish location codes and store all tools and equipment in an orderly manner based on these codes.

38. Conduct a complete physical count of all tools and equipment currently on site:
- Include all tools and equipment stored throughout Port property, including those in the shops and in vehicles.
 - Segregate the tools and equipment by whether they are usable and needed, usable but not needed, or unusable (either because of their condition or obsolescence).
 - Tag and add all usable and needed tools and equipment valued at \$100 or more to the asset database and store in an orderly manner based on location codes.
 - Coordinate with the General Services Agency to transfer all unusable and usable but not needed tools and equipment to another city department or to the City's approved vendor for auction as appropriate.
 - Update the asset database to reflect the results of this effort.
39. Establish a system for checking out and returning tools and equipment for use on projects. Do not allow check-outs for non-Port purposes. Use prenumbered forms that require a signature from an authorized manager and the work order for which the tools and/or equipment will be used.
40. Require employees to return to the tool crib for appropriate action (i.e., repair, replacement, surplus) all tools and equipment that become unusable.
41. If an item is lost, stolen or otherwise missing, require that it be reported to management immediately upon discovery, along with available information regarding the circumstances surrounding the loss. Report all suspected theft of tools or equipment to the San Francisco Police Department for investigation.
42. Promptly update the database as tools and equipment are added or removed from inventory.
43. Establish a schedule and a protocol for regular and frequent physical counts of all tools and equipment.

Require tool crib staff to perform cyclical counts and to identify and dispose of unneeded or unusable items in accordance with established procedures.

44. Determine what frequently-used tools and equipment, if any, are appropriate for shops to hold within their physical space or in vehicles. Require these items to be run through the centralized tool crib and signed out to the shops using the established procedures for issuing tools and equipment. Require the shops to use similar processes for storing and checking out tools and equipment to employees for use on projects to ensure accountability over these items.
45. Provide training to staff on tool control practices and the Maintenance Division's policies and procedures regarding management of tools and equipment.

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Chapter 3 – Other Accountability Issues

Summary

We identified four issues that were beyond the scope of the audit but were significant enough to require discussion:

- The Avantis Facilities Maintenance Management System is not secure and does not meet the Maintenance Division's needs for planning, purchasing, and inventory control.
- The Maintenance Division's security practices do not ensure that access to its facilities is restricted to authorized personnel.
- The Maintenance Division routinely charges costs to incorrect work orders, causing some work orders to be overcharged and others to be undercharged.
- Maintenance Division employees used Port property and time for personal purposes.

Finding 3.1

The Avantis Facilities Maintenance Management System is not secure and does not meet the Maintenance Division's needs for planning, purchasing, and inventory control

The Avantis system has been stripped of much of its functionality and lacks appropriate controls over user access

Although the Port has spent almost \$1.4 million¹³ to implement the Avantis Facilities Maintenance Management System, the Maintenance Division has disabled the system of much of its functionality and now uses it only for inventory and work order tracking. In addition, the system uses a standard and well-known user identification and password format, which significantly increases the risk of unauthorized access and purchases because someone can easily initiate a purchase with another person's access codes.

No one is currently assigned lead responsibility for Avantis

The Board of Supervisors Budget Analyst reported on some of the Avantis implementation issues in its 2004 report, and the Port responded to the audit recommendations by stating that it was committed to making the system work and would dedicate a staff person to the system. The Port had assigned a dedicated staff member in 2004 to complete the implementation of Avantis. The Port initiated

¹³ This figure does not include staff training time or the staff time used to implement Avantis.

and completed a re-evaluation of the functionality of the Avantis software as a maintenance management system in late 2005-06. However, no one is currently assigned responsibility for Avantis, which limits the Maintenance Division's ability to make changes in the system and to ensure staff buy-in to using the system. Further, Maintenance Division staff reported that the system is cumbersome to use and staff does not like to use it.

Multiple deficiencies affect the ability to use Avantis effectively

The Maintenance Division implemented Avantis in December 2002, but never implemented 5 of the 11 functional components and does not fully use those that it has implemented. Maintenance Division staff identified many deficiencies with Avantis, including:

- Avantis and Oracle¹⁴ use different work order numbering systems, so work orders created in Avantis have to be entered separately into Oracle to get the final work order number, which duplicates effort.
- Work orders are created manually in Avantis, which negates the preventive maintenance work order function that Avantis was intended to provide.
- Although Avantis can bill hours to specific work orders, it uses average hourly rates that do not include associated overhead or benefit costs. The Oracle accounting system includes these additional costs and is relied upon for the actual billings.
- Shops use Avantis inconsistently — some shops charge their hours to specific work orders while others charge their hours to a generic work order, which makes it difficult to determine the actual cost of some projects.
- Avantis is time-consuming to maintain; it requires an entire person to do so.
- Avantis takes a long time to process searches and create purchase orders.
- Avantis is used to track storeroom inventory but not inventory maintained by the shops or purchased for capital projects (see detailed discussion in Finding 2.1).
- Current staff does not have sufficient knowledge of Avantis to change reporting parameters.
- The inventory quantities in Avantis are inaccurate, making it difficult to rely on for determining when to replenish stock (see detailed discussion in Finding 2.1).

¹⁴ The Port uses Oracle to create City purchase orders, accounting for Port transactions, and processing vendor payments.

- Avantis can produce a replenishment report to facilitate the purchasing process, which is consistent with a best practice known as material requirements planning. However, the report is inaccurate and there is no easy way to produce transaction lists to monitor purchases. Consequently, storeroom staff relies on memory and visual cues to determine what and when to reorder, which can result in having too much or too little stock on hand (see detailed discussion in Finding 2.2).
- Inventory counts can be adjusted in Avantis without a corresponding receipt or disbursement transaction (see detailed discussion in Finding 2.1).
- There is no appropriate segregation of duties regarding access to different functions in Avantis. The storekeeper has the ability to add, delete, and edit all items in the inventory, including the quantity and value of the items. This is a significant deficiency because it increases the risk of employee theft.
- User identification codes and passwords both have a standard format that is known by all, and users cannot change either one. This significantly increases the risk of unauthorized access and purchases because someone can easily initiate a purchase with another person's access codes.

It is unlikely that further investment in the Avantis system will sufficiently improve its functionality

Management's previous commitment to Avantis is no longer present, and it is unlikely that further investment in the Avantis system will improve its functionality to a level that will meet the Maintenance Division's needs. At this point, it is more reasonable to consider the initial investment in system and labor costs as sunk costs and pursue an inventory management system that will better meet the Maintenance Division's needs.

Recommendations

Port Management should require the Maintenance Division to:

46. Pursue alternatives to the Avantis Facilities Maintenance Management System. Conduct a needs analysis to determine whether a combined facilities maintenance and inventory management system or separate systems for each function will best meet the Maintenance Division's needs. Specifically identify why Avantis did not meet the Maintenance Division's needs and address those issues when identifying potential

alternatives to the Avantis system.

Finding 3.2

The Maintenance Division's security practices do not ensure that access to its facilities is restricted to authorized personnel

The Maintenance Division does not have policies and procedures for managing the keys for its locks, and the prevailing assumption is that keys are widespread and many people know the lock combinations. The Maintenance Division also allows employees to park in the yards where some of its materials are stored. These deficiencies make it difficult to determine when a key has been lost or stolen, increase the risk of entry by unauthorized people, increase the risk of theft by either Maintenance Division employees or others, and limit the Maintenance Division's ability to identify who took materials when a theft occurs.

Lack of key control causes high risk for unauthorized entry to Port facilities

Key control in the Maintenance Division is unorganized and informal. There is no single person who is designated as a key control manager to implement, execute, and enforce key control policies and procedures. As a result, there is no recorded chain of accountability for keys, and there is a high risk of unauthorized entry to Port facilities. Specifically, the Maintenance Division does not:

- Identify who actually needs keys versus who wants keys and thus indiscriminately gives keys to many employees.
- Maintain records of the keys it has and to whom they have been issued.
- Ensure that keys are returned when employees leave the organization.
- Secure all keys that have not been issued or that are not in use.

Single key code used for all locks

Further, the Maintenance Division has a single key code for all of its locks, which increases the risk for employees to enter areas they should not. The storekeeper identified an instance where an employee allegedly entered the storeroom on a weekend, without authorization, and took roofing materials for a job. The storekeeper noticed that the materials were missing during the week after the incident and began asking questions to determine what happened to the materials. The storeroom is an example of an area that

should not use the same lock as other areas of the Maintenance Division and should have restricted access since it holds many materials for Port projects.

Establishing basic key management policies and procedures will increase security and accountability

Basic, but critical requirements for key management include:

- Appointing a key control manager.
- Knowing how many keys there are, where they are, who has them, and what doors they access to determine who should have access to the area.
- Establishing a policy and method for issuing and collecting all keys.
- Storing keys and key blanks in a locked cabinet or container in a secure area.
- Issuing keys only to individuals who have a legitimate and official requirement for the key. Requests for access when access can be accomplished through other means, such as unlocked doors or by request for entry through an intercom, should not convey automatic entitlement to a key.
- Recordkeeping to account for all keys.

Risk of theft is high because employees park in the yards where materials are stored

The Maintenance Division allows employees to park in the same yards where it stores materials, which is contrary to the common practice of prohibiting personal vehicles in maintenance yards. Allowing employees to park in the Maintenance Division yards increases the opportunity for theft, as employees can easily put materials in their personal vehicles without being noticed. In the past, Port management personnel have seen materials in employees' vehicles that were believed to be Port materials. However, when the employees claimed that the materials were their own personal materials, there was not an easy way to prove that they were not. Prohibiting employees from parking in the yards where materials are stored, combined with tagging all materials as inventory (see related discussion in Finding 2.1), would significantly reduce the risk of theft of Port materials. Further, another City department we contacted requires employees to park their vehicles outside fenced areas and to prohibit employees from going to their vehicles during work hours.

Some fenced-off areas are easily accessible

The risk of theft is also increased because some fenced-off areas at the Port are easily accessible, primarily because

materials are stored near the fence that would make it easy for someone to climb over the fence. Exhibit 5 shows pallets stacked near the fence that someone could use as stepping stones to hop over the barbed wire above the fence.

EXHIBIT 5 **Example of Easily Accessible Area**



Source: Pictures taken by audit staff during walkthrough of Port maintenance facilities.

Recommendations

Port management should require the Maintenance Division to:

47. Develop a security plan to identify who should be allowed access to various areas throughout the Maintenance Division.
48. Rekey all locks so that multiple areas are not accessible with the same key unless there is a bona fide need, and to eliminate the risk that unauthorized people have keys to Maintenance Division facilities.
49. Develop and implement policies and procedures for effective key control:
 - Designate a key control manager to implement, execute, and enforce key control policies and procedures.
 - Establish a policy and method for issuing and collecting all keys; consider legitimate and official requirements rather than only access requirements for each area when authorizing employees to have

keys.

- Establish a method for safeguarding all keys and key blanks that have not been issued against fire and theft.
- Establish recordkeeping procedures to account for all keys, including a system for numbering each key and obtaining employee signatures upon receipt and return of keys.
- Conduct random key checks, on at least an annual basis, to ensure that accountability of keys is maintained.
- Develop and communicate enforcement procedures including policies regarding loaning of keys to others; creating duplicate keys; reporting lost, stolen, or damaged keys; requirements for securing areas after entry and departure; storing keys when not in use; and disciplinary actions for noncompliance.

50. Explore the feasibility of replacing the current traditional key system with an automated key card system to eliminate unauthorized copying of keys and to increase accountability over use of keys, including where and when they are used.

51. Designate an employee parking area(s) that is separate from areas where Port materials are stored. Purchase and post signs for the materials storage areas that say, "Maintenance Vehicle Parking Only." Do not allow Maintenance Division vehicles in the employee parking area(s) or personal vehicles in the materials storage areas, and do not allow employees to take any Port materials into the employee parking areas.

Finding 3.3

The Maintenance Division routinely charges costs to incorrect work orders, causing some work orders to be overcharged and others to be undercharged

**6 of 17 (35 percent)
sampled purchase
orders were not coded to
the correct work order**

We reviewed how costs were allocated for 17 purchases that the Maintenance Division made in FY 2005-06 and FY 2006-07 and identified 6 that were charged to the wrong work order:

- \$857 of reinforcing steel bar was purchased for a treatment plant project but charged to a shop's default

work order.

- \$1,089 of signs were purchased for a fencing project but charged to the Pier 80 Administration Building.
- \$4,871 of trash cans were purchased for a project at Rincon Park but charged to the Port-wide indirect work order.
- \$5,537 of construction materials purchased for three projects were all charged to the Avantis Pier 14 work order.
- \$2,047 of flags purchased for the Roofing Shop were charged to the Avantis Port Maintenance Pier 50 D work order.
- \$671 of anchor studs purchased for the Sheetmetal Shop were charged to the Avantis Port Maintenance Pier 50 D work order.

53 percent of purchases made in FY 2005-06 were charged to default work orders

Instead of doing a more detailed analysis of individual purchases, we did a summary analysis to determine how the Maintenance Division allocated the costs to work orders for its purchases in FY 2005-06. We found that it coded 2,086 of 3,953 (53 percent) purchase orders to "default" work orders that charge costs to a shop account rather than allocating them to a specific job or location. Maintenance Division management stated that this was done to use funds from work orders that had balances available.

Incorrectly coding purchases to work orders causes some work orders to be overcharged and others to be undercharged, and can affect both reimbursements and future budgeting decisions. Correctly allocating costs is a basic cost accounting function that the Maintenance Division should practice to provide accountability and to support future decisions regarding project funding.

Recommendations

Port management should require the Maintenance Division to:

52. Develop and implement policies and procedures for allocating costs to work orders. Specifically, the policies and procedures should:

- Establish criteria to determine when to assign costs to a project work order versus a default work order.
- Assign responsibility within each shop for allocating the costs of its purchases to the appropriate work order.

53. Develop management reports that include a description of each purchase and the work order to which it was charged. Regularly (e.g., monthly) review the reports to identify incorrect cost allocations and default work orders that appear to have excessive charges against them.

Finding 3.4

Employees used Port time and resources to play games, sleep, and wash their cars

Maintenance Division employees used Port property and time for personal purposes

We observed possible instances of inappropriate use of Maintenance Division resources for personal purposes, including:

- An employee playing video games on a personal laptop during work hours.
- Two employees apparently sleeping during work shifts.
- An employee relaxing in a Maintenance Division vehicle instead of working; the vehicle was parked behind a building that hid him from view.
- An employee using Port equipment to wash a personal vehicle.

Maintenance Division management has allowed employees to use the Port's vehicle washing facilities to wash bird droppings from personal vehicles. Employees have also been allowed to take Maintenance Division tools and equipment home for personal use. These practices violate City prohibitions against using City resources, including time and equipment, for personal use and should be discontinued immediately.

Employee supervision in the Maintenance Division is inherently difficult because employees are required to travel frequently to various buildings, sheds, and piers for maintenance work. The Port does not have a way to track where employees are during work hours, and the instances that we noticed might be exceptions rather than representations of the work ethic of the division. Nevertheless, the risk to the Port and the City in the form of a loss of public confidence and negative media attention is substantial, as exhibited in a recent case where Recreation and Park employees were exposed by the media for slacking off on City time and stealing plants. Further, for safety reasons, Maintenance Division management should

know where employees and vehicles are at all times during work hours.

Recommendations

Port management should require the Maintenance Division to:

54. Draft and distribute a letter to all employees reminding them what activities are inappropriate uses of time during work hours. This letter should include specific examples of restricted behavior, but should also be clear that the list is not inclusive and that violations of this policy will result in disciplinary action.
55. Immediately discontinue the practice of allowing employees to use Port resources for personal purposes under any circumstances. Draft and distribute a letter to all employees reminding them that using Port resources for personal purposes violates City policy and will result in disciplinary action.
56. Consider installing global positioning system (GPS) devices in Port vehicles for the purpose of tracking the whereabouts of its vehicles at all times.

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APPENDIX A: Inventory Count Best Practices

In March 2002, the United States General Accounting Office (GAO) issued an executive guide¹⁵ that identified processes and controls used by seven private sector companies¹⁶ recognized as excelling in their ability to manage inventory and achieve consistent and accurate counts of physical inventories. The guide identifies 12 key factors that represent practices that are widely adaptable to a variety of inventory types (e.g., property, plant and equipment), volumes, and dollar values. The following is a summary of the 12 key factors and strategies to consider when implementing them. The summary table shows that there is an overarching requirement for management commitment to achieve success.

MANAGEMENT COMMITMENT	1. Establish Accountability
	2. Establish Written Policies
	3. Select an Approach
	4. Determine Frequency of Counts
	5. Maintain Segregation of Duties
	6. Enlist Knowledgeable Staff
	7. Provide Adequate Supervision
	8. Perform Blind Counts
	9. Ensure Completeness of Count
	10. Execute Physical Count
	11. Perform Research
	12. Evaluate Count Results

1. ESTABLISH ACCOUNTABILITY

a. *Characteristics:*

- Set inventory record accuracy goals at 95 percent or better
- Set other performance expectations
- Establish accountability and responsibility for the overall physical count

b. *Strategies to consider to establish accountability for the physical count process:*

- Establish performance goals for the physical count that are aligned with the organization's mission, strategic goals, and objectives
- Establish high measurement goals and continuously assess the organization's progress in achieving and maintaining those goals

¹⁵ United States General Accounting Office. *Executive Guide: Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property*, GAO-02-447G. 2002.

¹⁶ The seven leading-edge companies studied were Boeing, Daimler Chrysler, DuPont, FedEx, General Electric, Honeywell, and 3M.

- iii. Identify the line of authority and responsibility from top management to the level of the organization responsible for accomplishing a consistent, accurate physical count of inventory and related property
- iv. Develop employee/supervisor performance measurement systems to hold appropriate personnel accountable for achieving the organization's performance goals

2. ESTABLISH WRITTEN POLICIES

a. *Characteristics:*

- i. Document policies and procedures for entire physical count process
- ii. Regularly review and update established policies and procedures

b. *Strategies to consider to establish effective written policies and procedures for the physical count process:*

- i. Develop broad inventory policies that are designed to attain management's goals
- ii. Develop written procedures for all aspects of the physical count processes, including:
 - defining the current processes and the individual tasks associated with the process
 - procedures for and examples of filing and completing required paperwork
- iii. Regularly review and revise policies and procedures for changes in the process and individual tasks

3. SELECT AN APPROACH

a. *Characteristics:*

- i. Cycle counting supports operational and financial needs of the organization
- ii. A wall-to-wall physical count supports financial reporting at a point in time
- iii. In selecting the best physical count approach management should consider:

- the objective or purpose of the count and the timing issues involved
- the capabilities of the inventory system
- the existing control environment over the inventory system and processes
- the characteristics of the inventory

b. *Strategies to consider to select a physical inventory counting approach:*

- i. Determine the objectives of performing the physical count:
 - to establish a balance as of a specific date for financial reporting
 - to monitor the accuracy of the inventory records for financial reporting and management decisions
 - to ensure the availability of inventory to meet operational needs including mission readiness
 - to identify excess or obsolete inventory
- ii. Assess the resources and timing needed to conduct the count
- iii. Evaluate the capability of the inventory system to:
 - maintain item balances on a current or periodic basis, and
 - maintain balances by item location
- iv. Evaluate the existing control environment over the inventory system and processes:
 - to ensure transactions are properly executed and recorded in the inventory system
 - to determine that the inventory system provides a reasonable basis for comparison to the physical count
 - by considering existing or historical accuracy rates to support the assessment

4. DETERMINE FREQUENCY OF COUNTS

a. *Characteristics:*

- i. Determine which items to count and how frequently
- ii. Choose a method of selecting individual items or locations for count

- b. **Strategies to consider to determine the frequency of the physical counts:**
- Assess the resources and timing needed to conduct the count
 - Identify segments or classes of the inventory and assess each segments' risk to determine the degree of control needed based on:
 - activity or turnover
 - dollar value
 - sensitive or classified items
 - items critical to production or mission readiness
 - items susceptible to misappropriation, including theft
 - Select a frequency of count for each segment based on the assessed risk and degree of control needed such as:
 - daily
 - weekly
 - monthly
 - semi-annually
 - annually
 - Determine a method of selecting individual items for count such as:
 - sequentially by row or area within the warehouse or facility
 - random selection
 - weighted selection towards higher dollar, higher activity items

5. MAINTAIN SEGREGATION OF DUTIES

- a. **Characteristics:**
- Segregation of duties
 - Physical custody of assets
 - Processing and recording of assets
 - Approval of transactions
 - Mitigating controls
 - Blind counts (see key factor 8)
 - Increased supervision (see key factor 7)
 - Two-member count teams
- b. **Strategies to consider to implement and maintain effective segregation of duties in the physical count process:**
- Determine if there are available resources to conduct the count and whether they have the appropriate knowledge and experience of the inventory and counting
 - Analyze the normal job duties of personnel performing the physical count, considering who has responsibility for:
 - custody or physical control of the inventory
 - processing and recording of inventory transactions
 - approval of transactions and adjustments
 - Determine whether controls may be impaired if any one person has been given responsibility for more than one activity noted in the previous strategy
 - Perform a risk versus cost analysis of any apparent controls risks, and determine whether:
 - duties may be reassigned
 - mitigating controls can be implemented
 - risk is at an acceptable level

6. ENLIST KNOWLEDGEABLE STAFF

a. *Characteristics:*

- i. Counters are knowledgeable about the inventory items
- ii. Counters are knowledgeable about the count process
- iii. Counters are well-trained

b. *Strategies to consider to enlist knowledgeable staff in the physical count process:*

- i. The amount of resources available to conduct the count
- ii. Experience and knowledge of the inventory and count process of the count team
- iii. Frequency of counts of time necessary to complete the count
- iv. Establishing a separate inventory group of dedicated counters
- v. Assigning or promoting personnel with prior experience in the warehouse and knowledge of the inventory accounting position
- vi. Providing on-the-job and classroom training of the count process to counters, supervisors, and personnel researching variances on aspects such as
 - types of inventory
 - warehouse layout
 - unit of measure
 - radio frequency (RF) devices
 - computer system
 - research (if applicable)
 - supervision (if applicable)

7. PROVIDE ADEQUATE SUPERVISION

a. *Characteristics:*

- i. Provide instructions and training
- ii. Assign count team and responsibilities
- iii. Review count sheets
- iv. Ensure that all items are counted

b. *Strategies to consider to provide adequate supervision over the physical count process:*

- i. The number of resources or teams performing the physical count
- ii. Frequency of the counts or the time necessary to complete the count
- iii. Knowledge and experience of the personnel performing the count
- iv. Whether there is adequate segregation of duties from responsibilities of asset custody
- v. The assigned responsibilities of the supervisor such as:
 - the availability of count personnel
 - selection of count team members
 - assignment of count responsibilities
 - monitoring of performance
 - ensuring counters are following procedure and complete counts in a timely manner
- vi. Size of the warehouse or area subject to count
- vii. The number and complexity of items to be counted
- viii. Other controls that may be in place during the count, such as the performance of blind counts

8. PERFORM BLIND COUNTS

a. *Characteristics:*

- i. No prior knowledge of on-hand balances
- ii. Limited or no access to inventory system

- b. **Strategies to consider to effectively use blind counts:**
 - i. Tools used to perform the count (count cards, count sheets, or RF Guns)
 - ii. Capability of the inventory system to not provide quantities on count cards or sheets, and restrict access to on-hand balances prior to and during the performance of the count, except for authorized personnel
 - iii. Personnel performing the physical count and whether there is segregation of duties between the responsibilities of asset custody and physical counts
 - iv. Personnel's experience and knowledge of the inventory items and the count process

9. ENSURE COMPLETENESS OF COUNT

- a. **Characteristics:**
 - i. Cutoff procedures
 - ii. Preinventory count activities
 - iii. Control methods for count completion
- b. **Strategies to consider to ensure completeness of the physical count:**
 - i. The organization's operating environment, time of operations, and its ability to:
 - suspend operations during the physical count
 - perform counts when there is limited movement of the inventory, such as nights or weekends
 - prevent movement of items subject to count on the day of count only
 - ii. Reliability of the inventory system to accurately capture and track transactions affecting the on-hand balances
 - iii. Existence of slow-moving or excess obsolete inventory items that could be segregated and precounted
 - iv. Existence of inventory stored at outside locations and the personnel or organization responsible for verifying its physical existence
 - v. Use of prenumbered count sheets or tags and reconciliation of the numbers issued to the numbers returned
 - vi. Reconciliation of items selected for count to actual items counted
 - vii. Performance of additional counts where items are selected from the floor and compared to the inventory system

10. EXECUTE PHYSICAL COUNT

- a. **Characteristics:**
 - i. Communicate information to the counter
 - ii. Verify item data and quantity
 - iii. Capture and compare the physical count
 - iv. Perform requisite number of counts
 - v. Complete counts in timely manner
- b. **Strategies to consider to effectively execute the physical count:**
 - i. Determine the data to be verified by the count by considering:
 - knowledge and experience of the personnel performing the count
 - the item data maintained in the inventory system or on location labels
 - whether blind counts are to be performed, requiring the restriction of access to on-hand balances
 - ii. Determine the method to be used to capture and compare the count, such as count cards, sheets, or RF guns, by considering:
 - the capability of the inventory system
 - ability to use RF devices

- iii. Determine number of counts to perform by considering:
 - resources necessary to perform additional counts
 - personnel performing additional counts and their segregation of duties from asset custody and their knowledge and experience of the inventory and count process
 - time necessary to complete additional counts promptly
 - characteristics of the inventory (unit of measure, size, dollar value, classification, and size of variance in quantity and dollar value) to establish tolerances for additional counts

11. PERFORM RESEARCH

a. *Characteristics:*

- i. Perform required research
- ii. Complete research in a timely manner
- iii. Refer variances to management and security for approval and investigation

b. *Strategies to consider to effectively research variances arising from the physical count:*

- i. Establish tolerances or criteria for selection of variances to research such as:
 - effect on operations or mission readiness
 - quantity and dollar value
 - characteristics of the items with the variance, such as sensitive, classified, or items susceptible to fraud or theft
- ii. Develop processes for how to perform research, such as procedures for reviewing movement of items during the count, transaction histories, and shipping and receiving documents, by considering:
 - reliability of the inventory system to accurately capture transactions affecting the on-hand balance
 - time necessary to complete the research promptly
 - knowledge of the personnel performing the research
- iii. Establish error codes that would identify the cause of variances
- iv. Set approval levels for adjustments that move up the chain of management as the dollar value increases or the nature of the item requires a higher level of approval
- v. Define responsibility for reviewing adjustments and trends on sensitive and classified items and items susceptible to fraud or theft, and notify security or law enforcement

12. EVALUATE COUNT RESULTS

a. *Characteristics:*

- i. Measure the results of the physical count using performance measures
- ii. Communicate the results of the physical count to counters, management, and warehouse personnel
- iii. Modify policies and procedures to address necessary changes in the physical count process

b. *Strategies to consider to evaluate the results of the physical count process:*

- i. Establish performance measures that are aligned with organizational objectives and strategies and that are useful in evaluating the results of the physical count
- ii. Determine the methods to be used to measure performance of the count by:
 - defining an error for purposes of measuring performance
 - establishing tolerances based on characteristics of the inventory and the quantity or dollar value of the variances to be considered in error
- iii. Establish mechanisms to communicate results and performance measures to counters, warehouse personnel, and managers

- iv. Establish routine meetings with managers from all aspects of the inventory process including the physical count, receiving, shipping, ordering, stocking and production, to discuss results and measures and evaluate the causes of the errors to identify corrective actions and assign responsibility for those actions
- v. Use results and performance measures as a basis to make changes to the process and modify existing policies and procedures to reflect changes in the processes

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APPENDIX B: Purchasing and Invoice Processing Cost Estimate

This table shows the estimated number of minutes to make a purchase and process the invoice. It does not include other staff time to correct entries, research, or follow-up on invoice-related items, or other City employee time in making the actual payments.

Task	Shop Supervisor	Admin Staff	Superintendent	Deputy Director	Storeroom Keeper (Receiver)	Pier 1 Accounting Staff (3 people)	TOTAL PER TASK
Find items needed and request quote from vendor	5	--	--	--	--	--	5
Create requisition in Avantis system and hand deliver to Admin	5	--	--	--	--	--	5
Review and approve requisition	--	--	5	5	--	--	10
Receive items and file paperwork	--	5	5	--	5	--	15
Receive and review invoice, prepare invoice for payment, and send to Pier 1 for processing	5	5	5	--	--	--	15
Enter invoice into systems and process payment	--	--	--	--	--	15	15
ESTIMATED TOTAL MINUTES PER EMPLOYEE	15	10	15	5	5	15	65 Minutes
Mid-Tier Per Hour Salary Cost	\$41.11	\$23.66	\$51.47	\$63.91	\$23.00	\$31.31	--
Cost Estimate Per Invoice	\$10.28	\$3.94	\$12.87	\$5.33	\$1.92	\$7.83	\$42.16
Total Cost Estimate Per Invoice (including benefits assumption of 25 percent)							\$52.70
Number of Invoices <\$52							828
Total Estimate of Cost to Process Invoices <\$52							\$43,633.88
Total Value of Invoices <\$52							\$22,925.49

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APPENDIX C: PORT OF SAN FRANCISCO RESPONSE

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March 4, 2008

Mr. Ed Harrington
Controller
City & County of San Francisco
City Hall, Room 316
San Francisco, CA 94102

Subject: *Response to Audit of Port's Purchasing and Inventory Practices*

Dear Mr. Harrington: *Ed*

Thank you for the work of your office in fulfilling the Port of San Francisco's request for an audit of our purchasing and inventory practices. Enclosed is the Port's comprehensive response to the Controller's Draft Audit Report detailing findings, recommendations and responses with respect to the Port's purchasing and inventory practices.

In Summer 2006, Port staff became concerned about the Port's purchasing and inventory practices when the Maintenance Division submitted 400 unpaid invoices received, but not processed, during FY 2005-06. The delinquent invoices totaled approximately \$350,000, a significant amount. At about the same time, Port staff learned that our Maintenance Division's volume of purchases under \$200 (which do not require a purchase order) was significantly greater than those of other City departments. These discoveries led us to request the Controller's Office to audit the Port's purchasing and inventory practices in its Maintenance Division. With your findings and recommendations, Port staff believe we will be able to make substantial improvements to the Port's purchasing and inventory practices. Such improvements will ensure the Port has the proper internal controls to (1) prevent unauthorized purchases, (2) ensure the Port pays appropriate prices and (3) ensure the Port purchases items from appropriate vendors.

As enumerated in the enclosed response, the Port concurs with all of the findings and recommendations of the Draft Report. Due to the complexity of some of the recommendations, such as replacing the Port's Maintenance Management System (Avantis), Port staff estimate that it will take up to three years to implement all recommendations. However, some recommendations have already been implemented, including (1) sending key personnel to an inventory class, (2) requiring vendor deliveries be made directly to the storeroom, (3) drafting purchasing and inventory policies, (4) initiating a needs assessment to replace the Avantis system, and (5) substantially segregating the Maintenance employee parking lot from areas where Port vehicles, good and materials are stored.

I thank you and your staff for conducting a thorough review of the Port's purchasing and inventory practices in its Maintenance Division and assisting us in this important matter.

Sincerely,

Monique
Monique Meyer
Executive Director

Enclosure

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03/04/2008 08:36AM

Recommendation	Responsible Agency	Response	Explanation
1. Coordinate with DPW to implement RAS, or other comparable software, within the Port Maintenance Division.	Port	Concur	By the end of FY 2008-09, While we really like RAS, we want to also explore whether there is similar off-the-shelf software application that is directly compatible with Port systems and that would come with full vendor support. Implementation will be supported by Port IS staff; and day-to-day operation of the system will be administered by positions that the Port recently requested to reclassify to more appropriate purchasing related positions.
2. Establish clear written policies and procedures regarding the types of purchases allowed, who is authorized to make purchases, and the approval process.	Port	Concur	By April 30, 2008, Port management will issue policy directives to clarify or update existing policies, including approval processes. Detailed procedures will be developed as necessary to implement the new or updated policies, consistent with the Controller's detailed recommendation and best practices. Interim implementation measures with new procedural guidance will be in place within the next six months. Business processes and procedures will be more comprehensively addressed as planned supporting software systems are implemented over the next two to three years.
3. Establish criteria for determining whether repair versus replacement, or rent versus purchase, is the most cost-effective approach to meeting the Maintenance Division's needs.	Port	Concur	Establish and implement by June 30, 2008.

Recommendation	Responsible Agency	Response	Explanation
4. Use historical knowledge of purchases and planned projects and workload to plan future purchasing needs and establish additional blanket purchase orders as appropriate.	Port	Concur	Immediate. Currently there is a fairly concerted effort as part of the citywide effort in June of each year to analyze purchasing requirements and set-up departmental blanket and other purchase orders for the new budget year. We will work on improving the more informal process that occurs at the Port throughout the operating year. By FY 2009-10, Port Maintenance Division expects to have implemented a new computerized maintenance management system that meets its functional requirements. Port Maintenance's vision is to be able to make management decisions based on volume and quantity of historical purchases, planned work and projects, inventory turnover, and volume-purchasing cost savings.
5. Require persons authorized to make purchases to be familiar with and use established blankets to take advantage of the City's purchasing power and to ensure that only authorized purchases are made under the blankets.	Port	Concur	By the end of FY 2008-09, Port Maintenance has requested a 1408 Principal Clerk in its FY 2008-09 budget to assist with the procurement process. This position is intended to be the division's single point-of-contact for the creation of purchasing requisitions. A main function of this position will be to ensure compliance with established procedures and control the quality of the division's purchasing. Authorized shop employees will provide required and necessary information and vendor quotes to this clerk. The Business Services manager in the Finance & Administration Division holds the official delegated responsibility from OCA for decentralized purchasing at the Port. This manager will supervise the 1408 Principal Clerk working at Pier 50 Maintenance Division office. Both would have required familiarity with established City blanket purchase orders as well as those department blanket purchase orders created by the Port.

Recommendation	Responsible Agency	Response	Explanation
6. Develop and consistently implement procedures to impose discipline on employees who do not comply with the policies and procedures. The procedures should include a requirement for employees who make unauthorized purchases to receive a written reprimand and pay for the items purchased, up through suspension and termination for repeated offenses.	Port	Concur	By April 30, 2008, Port management will issue policy directives to clarify or update policies. The policy statements will include the consequences for not following established procedures, as recommended.

Recommendation	Responsible Agency	Response	Explanation
7. Designate staff who do not order goods to review all purchase requisitions for reasonableness of the purchase need and the price.	Port	Concur	Immediate. The reasonableness for the purchase and the price must be reviewed prior to purchase, at the time of requesting a purchase requisition. The Superintendents have responsibility to pre-approve purchases for necessity and reasonableness. FY 2008-09. It is anticipated that the 1408 Principal Clerk, to be assigned to Maintenance, will also verify reasonableness of cost by referencing City Contracts, Department Blankets, and/or seeking multiple quotes. In connection with Accounts Payable processing, Port accountants will verify invoices against purchase orders for quantity purchased and pricing. By 2009-10, Port Maintenance Division expects to have implemented a new computerized maintenance management system that meets its functional requirements. Necessity and reasonability will be part of the work planning activities within the process workflow. Management reports from that system are also expected to facilitate or support additional review or auditing of purchasing activities.

Recommendation	Responsible Agency	Response	Explanation
8. Establish written procedures to prevent overcharging by requiring staff who process invoices to compare the invoice price for each line item with the contracted or quoted price. When discrepancies are identified, staff should notify the vendor of the discrepancy and request a corrected invoice.	Port	Concur	Immediate. Remind/direct current staff approving invoices to check pricing against purchase order or other authorized (approved) pricing. Within six months. We plan to remove accounts payable invoice-handling responsibilities from Pier 50 and centralize control in the Port Accounting unit. New processes and procedures have to be comprehensively planned and staff must be trained. Implementation, with new procedural guidance, is expected within next six months. New procedures will also provide for vendor notification and invoice correction, as deemed appropriate. We will include purchasing, inventory, and vendor payment performance goals in Port employee annual performance plans that will be evaluated in the annual performance appraisals.

Recommendation	Responsible Agency	Response	Explanation
9. Coordinate with vendors who regularly charge other than the agreed-upon prices to identify corrective actions that can be taken to prevent future overcharges.	Port	Concur	Immediate. Accounts Payables staff will keep the Business Services manager, who is responsible for the Port's purchasing function, apprised of regular pricing errors. In turn, the manager will coordinate remediation and correction with the errant vendor. By the end of FY 2008-09. We plan to implement the DPW RAS system (or a similar system) and will encourage vendors to participate in using that system to receive and process purchasing requisitions from the Port. Pricing discrepancies should be eliminated for items cataloged in RAS since authorized item pricing is tied to a City contract or blanket.

Recommendation	Responsible Agency	Response	Explanation
10. Provide formal training on internal controls over purchasing and the inventory process to all Maintenance Division employees who have responsibilities in these functional areas. Specifically, the training should discuss appropriate segregation of duties, the reasons for segregation of duties, and the procedures required for timely identification of discrepancies in shipments and invoiced amounts.	Port	Concur	By June 30, 2008, Port management will conduct training covering new or updated policy directives and will cover internal controls over purchasing and inventory. Training for detailed procedures will be conducted for affected employee groups, as they are developed and released for implementation. In November 2007, several key staff from Maintenance and Finance & Administration attended inventory training provided by an outside vendor ("Managing Inventory and Cycle Counts"). Other training will be planned to cover new and additional staff, as required.

Recommendation	Responsible Agency	Response	Explanation
11. Establish and implement a policy that requires all deliveries of goods to be made through the storeroom. Prohibit shop employees from accepting direct deliveries of goods at the shops and from picking up routine purchases at a vendor's place of business. Post signs that are visible at all gate entrances and all of the shops to notify vendors that all deliveries are accepted only at the storeroom at Pier 50 and that vendors will not be paid if deliveries are made elsewhere.	Port	Concur	Substantially implemented. A policy was issued in FY 2006-07 that required vendor deliveries to be made to the storeroom and for the under \$200 purchases be limited to when absolutely necessary. By June 30, 2008. The policy will be updated to further clarify expectations and advise of consequences for not adhering to the policy. Signs will be installed and vendors will be notified by mail of the delivery requirements and consequences for not following the requirements by June 30, 2008.

Recommendation	Responsible Agency	Response	Explanation
12. Provide copies of all purchase orders to the storeroom. Establish, implement, and monitor storeroom procedures to ensure that, at a minimum, storeroom staff open and inspect all deliveries of materials and match the shipment with the approved purchase order or blanket to ensure that the: • Correct items were received • Correct quantities were received • Items are not damaged	Port	Concur	Immediate. The procedure of opening and inspecting can be implemented immediately through a directive, followed by more detailed written procedures. By June 30, 2008. Issue detailed written procedures covering the distribution of purchase orders to the storeroom and the monitoring and inspection of all deliveries of materials. The Port's Accounting Division will conduct periodic spot audits to ensure staff are complying with these procedures. We will include purchasing, inventory, and vendor payment performance goals in Port employee annual performance plans that will be evaluated in the annual performance appraisals.
13. Establish and consistently implement procedures to impose discipline on employees who violate the policies established as a result of these recommendations.	Port	Concur	By June 30, 2008 (and continuing). Employee disciplinary consequences will be included in the policies established in response to audit recommendations. We will include purchasing, inventory, and vendor payment performance goals in Port employee annual performance plans that will be evaluated in the annual performance appraisals.

Recommendation	Responsible Agency	Response	Explanation
14. Develop written policies and procedures, based on the Office of the Controller's Prompt Payment Guidelines, to ensure that vendor payments are made within the discount period and that all other invoices are paid within 30 calendar days of receipt of an accepted invoice.	Port	Concur	November 2007. Controller's Departmental Guidelines No. 001-07 concerning prompt payments was received and issued to purchasing and accounting staff at the Port for implementation. FY 2008-09. Detailed procedures will be established for more comprehensive implementation of the Controller's Prompt Payment Guidelines In addition, the planned implementation and utilization of the DPW RAS (or similar) system will also provide a functional tool to, among other things, accelerate vendor payment.

Recommendation	Responsible Agency	Response	Explanation
15. Establish performance measures for the Maintenance Division to gauge purchasing efficiency and effectiveness. Appropriate measures might include: • Percentage of invoices with a prompt payment discount that are paid within the discount period • Percentage of invoices without a prompt payment discount that are paid within 30 calendar days of the invoice date	Port	Concur	By the end of FY 2008-09, A tracking mechanism, other than manual logging, should be developed. The planned implementation and utilization of the DPW RAS (or similar) system will provide a functional tool to assist in processing and tracking prompt payments. We will include purchasing, inventory, and vendor payment performance goals in Port employee annual performance plans that will be evaluated in the annual performance appraisals.

Recommendation	Responsible Agency	Response	Explanation
16. Require that all invoices be mailed directly to the accounting office at Pier 50. 1. Require accounting staff to establish procedures, such as using a tickler file and stamping invoices that offer a discount with a "discount" rubber stamp, to ensure that all invoices with a prompt payment discount are quickly identified and processed to ensure payment is made within the discount period and that all other invoices are paid within 30 calendar days. On a monthly basis, identify any discounts missed and late payments made, discuss with accounting staff the reasons why invoices are not paid promptly, and identify corrective actions to its performance goals.	Port	Concur	Within six months. We plan to remove accounts payable invoice-handling responsibilities from Pier 50 and centralize control with the Port Accounting unit. New processes and procedures have to be comprehensively planned and staff must be trained. In connection with this change, we will notify by mail existing and new vendors to mail invoices directly to the accounting unit at Pier 1.

Recommendation	Responsible Agency	Response	Explanation
17. Require Port accounting staff to compare invoices with the purchasing and receiving documents, as the final control in the process, to ensure that proper authorization was obtained for the purchase and that the correct prices were charged.	Port	Concur	Within six months. We plan to remove accounts payable invoice-handling responsibilities from Pier 50 and centralize control with the Port Accounting unit. New processes and procedures have to be comprehensively planned and staff must be trained. Document matching (i.e. invoice line details to receiving documents to purchase order line details) will be performed by the accounting unit at Pier 1.

Recommendation	Responsible Agency	Response	Explanation
18. Develop a comprehensive, written policies and procedures manual to govern management of all Maintenance Division inventory. The manual should incorporate best practices for inventory management (we recommend drawing concepts from the GAO Executive Guide) and should cover topics such as: • Inventory records. • Tagging inventory. • Inventory locations and storage. • Withdrawal of materials from inventory. • Returns and credits. • Disposition of unneeded inventory.	Port	Concur	By April 30, 2008, Port management will issue policy directives to clarify or update various policies, including key aspects of inventory management. Within six months. Interim corrective measures will be defined and implemented with appropriately detailed procedural guidance within the next six months. By end of FY 2009-2010. Business processes and procedures will be more comprehensively addressed as planned supporting software systems are implemented over the next two to three years. The comprehensive, written policies and procedures manual will be developed in phases, as the new software systems and other improvement elements are implemented. It is our final objective to develop a relevant comprehensive manual, consistent with the Controller's recommendations and identified best practices that apply in our context by FY 2009-10.

Recommendation	Responsible Agency	Response	Explanation
19. Track all Maintenance Division materials in a centralized inventory, including shop and capital project materials that are not currently tracked as inventory.	Port	Concur	By the end of FY 2008-09, The Port recognizes that the inventory located outside the storeroom, the capital project inventory and the Shop's inventory need to be counted and tracked. The first phase in the current plan is to remove all inventory stored within individual shops and consolidate or add it to the central storeroom. Capital project materials are directly charged to project accounts at the time of purchase and carried in the general ledger as part of the "Construction Work in Progress" account. There has been no formal procedure for periodic counting or other tracking of such materials. In FY 2008-09, we will develop separate procedures for capital project materials, providing for formal receipt into inventory, tracking issuances, return-to-stock for unused items, etc.
20. Develop a methodology for tagging inventory and apply inventory tags to all materials.	Port	Concur	By the end of FY 2008-09, we intend to complete research of the best practices and methodologies for inventory tagging. It is anticipated that inventory tagging will be implemented after shop inventories are consolidated into the storeroom. Inventory will be tagged and assigned a location in the storeroom.

Recommendation	Responsible Agency	Response	Explanation
21. Establish location codes for all materials, including those designated for capital projects, and store all materials in an orderly manner based on these codes. Use secure locations, such as locked, fenced off areas, for bulky items that are too large to keep in the storeroom.	Port	Concur	By the end of FY 2008-09. Location codes will be established in FY 2008-09 as we move forward with tracking shop and capital project materials. Locations will be identified for securing inventory in a locked facility that is located in the vicinity of the storekeeper to efficiently distribute materials and supplies.

Recommendation	Responsible Agency	Response	Explanation
22. Conduct a complete physical count of materials currently on site: • Include all materials in the storeroom, in the shops, in vehicles, set aside for capital projects, and laying on Port property. • Establish an objective measure (e.g., weight, with a conversion to unit count) for difficult to count items, such as nuts and bolts, prior to conducting counts. • Segregate the materials by whether they are usable and needed, usable but not needed, or unusable (either because of their condition or obsolescence).	Port	Concur	By June 30, 2008. Focus cycle count effort during the last months of the fiscal year on higher dollar stratum to reduce count discrepancies on more significant items of recorded inventory and mitigate likelihood of significant financial error in connection with year-end balance sheet. By the end of FY 2008-09: • Evaluation, procurement, and implementation of more appropriate inventory software. • Plan and schedule inventory count process. Current plan is to bring in an outside service to perform counts • Configure storeroom to improve utilization of floor and shelf space. • Centralize all inventories into the storeroom. • Create secure outside storage at Pier 50 to accommodate materials and supplies currently located at other Port locations (like Pier 70) • Develop process for recording the distribution of piles stored at Piers 80, 90, 96. • Transfer all unusable and usable but not needed materials to another City department or to the City's approved vendor for auction of excess inventory.

Recommendation	Responsible Agency	Response	Explanation
• Tag all usable and needed materials and store in a systematic manner based on location codes. • Coordinate with the General Services Agency to transfer all unusable and usable but not needed materials to another City department or to the City's approved vendor for auction of excess inventory as appropriate. • Update the inventory records to reflect the results of this effort. • Forward the updated inventory information to the Port's accounting staff to adjust inventory in the general ledger.	Port	Concur	

Recommendation	Responsible Agency	Response	Explanation
23. Require employees to use prenumbered forms, obtain a signature from an authorized manager, and cite the work order for which the materials will be used to request withdrawals of materials from inventory.	Port	Concur	By June 30, 2008, Prenumbered form will be implemented within current system and process, as an interim measure. This prenumbered form will replace manual non-numbered forms and will be utilized when requesting materials and supplies when an Avantis pick list is not generated. We will attach a copy of the form to the new and updated policies and procedures. The best solution would be to incorporate this process into a computerized system which we expect to have in place by FY 2009-10.
24. Promptly update the inventory as materials are added or removed from inventory.	Port	Concur	Immediate. Staff reminded to input timely updates for inventory activities in current AVANTIS system (i.e. management will monitor and enforce timeliness of current procedure). It is anticipated that a replacement system will be implemented within the next one or two years.
25. Return to and log back into inventory all materials leftover from a project/job, and adjust the work order to reflect the returned materials. If returned materials are not needed for future work, return them for a refund when that is an option or dispose of them in accordance with the City's guidelines for disposal of surplus materials.	Port	Concur	By the end of FY 2008-09, We'll need to complete a comprehensive inventory of the Port's materials and supplies before we can accurately identify these items. In addition, we'll need to implement an automated inventory system to input items. Thus, this is not covered by current procedures for either normal and routine maintenance work or capital projects. A detailed policy and procedure will be developed in FY 2008-09.

Recommendation	Responsible Agency	Response	Explanation
26. Establish a schedule and a protocol for regular and frequent physical counts of inventory. Require storeroom staff to perform cyclical inventory counts and to identify and dispose of unneeded or unusable items in accordance with established procedures.	Port	Concur	By June 30, 2008. As indicated in Response #22, we will focus cycle count effort during the last months of the fiscal year on higher dollar stratum to reduce count discrepancies on more significant items of recorded inventory and mitigate likelihood of significant financial error in connection with year-end balance sheet. Within six months. As indicated in Response #18, interim corrective measures and first-phase procedural guidance will be developed. By the end of FY 2008-09. New schedule and protocol for inventory counting will be fully defined.
27. Require storeroom staff to research all inventory count discrepancies to determine their cause and report the results to management to determine what corrective action is needed to resolve the identified discrepancies and prevent future discrepancies.	Port	Concur	Immediate. Storeroom staff have been directed to: • Run daily report, review it and report discrepancies to manager. • Immediately investigate discrepancies thoroughly. • Determine corrective action and resolve to prevent future discrepancies. • Re-run report to verify that they've corrected the discrepancies. Report results to management.
28. Report all suspected theft of inventory to the San Francisco Police Department for investigation.	Port	Concur	Immediate. Staff is to report all thefts to SFPD and police reports forwarded to the Deputy Director. Maintenance for review, action, and centralized filing.

Recommendation	Responsible Agency	Response	Explanation
29. If weight is used as the counting method for any items, purchase and keep on hand a calibrated scale and ensure that the scale is regularly calibrated according to the manufacturer's recommended schedule.	Port	Concur	By June 30, 2008. Staff has already been directed to immediately determine requirements and initiate procurement process for appropriate scale(s).
30. Determine what frequently-used items, if any, are appropriate for shops to hold in their own inventory. Require these items to be run through the storeroom inventory and signed out to the shops using the established procedures for issuing materials and allocating their costs to specific projects. Require the shops to follow similar processes for storing and checking materials out to employees for use on projects, including materials stored in vehicles, to ensure accountability over these items.	Port	Concur	By the end of FY 2008-09. We will evaluate and incorporate final determination into preliminary detailed procedures, as may be appropriate in the circumstances. It is anticipated that new facility maintenance management system will eventually provide accurate information concerning usage. By FY 2009-10. Phased steps over next few years to include • Establish detailed policies and procedures. • Incorporate requirement into software system RFP. • Train shop staff on inventory distribution. • Monitor implementation and success. • Update detailed policies and procedures.

Recommendation	Responsible Agency	Response	Explanation
31. Provide training to staff on standard inventory management practices and the Maintenance Division's policies and procedures regarding inventory management.	Port	Concur	By June 30, 2008, Port management will conduct training covering new or updated policy directives and will cover internal controls over purchasing and inventory. Training for detailed procedures will be conducted for affected employee groups, as they are developed and released for implementation. In November 2007, several key staff from Maintenance and Finance & Administration attended inventory training provided by an outside vendor ("Managing Inventory and Cycle Counts"). Periodic refresher courses for existing staff and other training will be planned to cover new and additional staff, as required.
32. Establish and implement guidelines for items that may be purchased for routine inventory based on frequency of use and the division's capacity for securely storing materials.	Port	Concur	By the end of FY 2008-09, Further research and analysis is required to establish the guidelines. Storeroom capacity has to be determined. A utilization plan based on square footage of floor space and capacity of shelving space also needs to be developed. The Port may hire a consultant to help develop this plan. Future information system improvements will later provide more accurate information to refine the management decisions in this area.
33. Establish and implement guidelines for replenishing items routinely held in inventory, with a goal of maintaining a balance between having sufficient inventory on hand to meet user needs and storing seldom-used inventory.	Port	Concur	By the end of FY 2008-09, Further research and analysis is required to establish the guidelines. Storeroom capacity has to be determined. A utilization plan based on square footage of floor space and capacity of shelving space also needs to be developed. Future information system improvements will later provide more accurate information to refine the management decisions in this area.

Recommendation	Responsible Agency	Response	Explanation
34. Develop a written policies and procedures manual to govern management of all Maintenance Division tools and equipment. The manual should provide guidance on how to implement the City's requirements for tracking fixed assets as well as assets valued at less than \$5,000. The manual should incorporate best practices for tool tracking control to ensure the Maintenance Division knows all the tools it has at all times, including where the tools are, rather than only an inventory of tools that have not been issued. The manual should cover topics such as: • Tool and equipment records • Tagging tools and equipment	Port	Concur	By April 30, 2008, Port management will issue policy directives to clarify or update various policies, including key aspects of equipment and tool asset management. Certain small improvements to existing practice and procedures for identification and tracking of "controlled" assets are in progress. By end of FY 2008-09, More detailed measures will be defined and implemented with appropriately detailed procedural guidance. Research will be conducted on best practices. We will incorporate requirements for this type of asset tracking into the RFP document for the new maintenance management software system

Recommendation	Responsible Agency	Response	Explanation
• Locations and storage of tools and equipment • Withdrawals of tools and equipment from inventory • Returns • Disposition of unneeded tools and equipment			
35. Expand the existing database maintained for Port equipment valued at over \$5,000 to include all tools and equipment valued at \$100 or more. Identify and add any fields needed to ensure that tools can be easily identified and tracked.	Port	Concur	By the end of FY 2008-09. Several interim steps have been initiated or planned in the current year. Broader implementation of tool and equipment tracking will occur after selection of appropriate asset database software.

Recommendation	Responsible Agency	Response	Explanation
36. Develop and implement a methodology for clearly identifying and tagging all tools and equipment (e.g., tags stating serial numbers and "Property of the Port of San Francisco"). Consider use of an automated tracking system such as bar coding or radio frequency identification (RFID).	Port	Concur	By the end of FY 2008-09, we intend to complete research of the best practices and methodologies for inventory tagging, as indicated in Response #20. We would also consider practices and methodologies for asset tagging. We will also incorporate potential automated asset tracking system as part of the functional requirements for the new system RFP.
37. Establish centralized locations to store all tools and equipment. Assign responsibility for overall management of tools and equipment. Use a tool crib for smaller items and other secure locations such as locked, fenced-off areas, for bulky items that are too large to keep in the tool crib. Establish location codes and store all tools and equipment in an orderly manner based on these codes.	Port	Concur	By the end of FY 2008-09, we intend to complete the following next steps: • Determine storage space needs. • Research and assess best practices. • Develop associated policies and procedures. • Train staff. • Implement.

Recommendation	Responsible Agency	Response	Explanation
38. Conduct a complete physical count of all tools and equipment currently on site: • Include all tools and equipment stored throughout Port property, including those in the shops and in vehicles. • Segregate the tools and equipment by whether they are usable and needed, usable but not needed, or unusable (either because of their condition or obsolescence). • Tag and add all usable and needed tools and equipment valued at \$100 or more to the asset database and store in an orderly manner based on location codes.	Port	Concur	By the end of FY 2008-09, Complete inventory would be basis for a new comprehensive record. Several interim steps have been initiated or planned: • Reconciling list of vehicles and equipment valued over \$5,000 from the fixed asset accounting system • Assessing various shop-based listings of tools tracked. • Updating and consolidating separate asset listings to create one master. • Identifying vehicles, equipment and tools that are no longer functioning or needed. • When necessary vehicles, equipment and tools that have not been number are being assigned a number. • Newly numbered items are entered into the assets list and will be entered into service, disposed of or auctioned as appropriate.

Recommendation	Responsible Agency	Response	Explanation
- Coordinate with the General Services Agency to transfer all unusable and usable but not needed tools and equipment to another City department or to the City's approved vendor for auction as appropriate. - Update the asset database to reflect the results of this effort.			

Recommendation	Responsible Agency	Response	Explanation
39. Establish a system for checking out and returning tools and equipment for use on projects. Do not allow check-outs for non-Port purposes. Use prenumbered forms that require a signature from an authorized manager and the work order for which the tools and/or equipment will be used.	Port	Concur	By the end of FY 2008-09. - Develop procedures for: - Placing into inventory new tools and equipment. - Checking out and returning tools and equipment. - Tracking tools and equipment location. - Reporting damaged, lost, or stolen tools and equipment. - Performing scheduled counts. - Determining appropriate action for removing unusable tools and equipment from stock. - Train staff on procedures. - Implement procedures. - Include asset tracking requirements in new system RFP.
40. Require employees to return to the tool crib for appropriate action (i.e., repair, replacement, surplus) all tools and equipment that become unusable.	Port	Concur	By the end of FY 2008-09. Covered by Response #39. We will include purchasing, inventory, and vendor payment performance goals in Port employee annual performance plans that will be evaluated in the annual performance appraisals.

Recommendation	Responsible Agency	Response	Explanation
41. If an item is lost, stolen or otherwise missing, require that it be reported to management immediately upon discovery, along with available information regarding the circumstances surrounding the loss. Report all suspected theft of tools or equipment to the San Francisco Police Department for investigation.	Port	Concur	FY 2007-08. Staff is to: • Report verbally to supervisory staff. • Supervisor document in writing. • Report to SFPD and retain copy of report • Report to Deputy Director, Maintenance for review and centralized filing. • Update assets database. We will include purchasing, inventory, and vendor payment performance goals in Port employee annual performance plans that will be evaluated in the annual performance appraisals.
42. Promptly update the database as tools and equipment are added or removed from inventory.	Port	Concur	Immediate. Covered by Response #41 Tracking will be better as quality of asset records is improved and new system is implemented.
43. Establish a schedule and a protocol for regular and frequent physical counts of all tools and equipment. Require tool crib staff to perform cyclical counts and to identify and dispose of unneeded or unusable items in accordance with established procedures.	Port	Concur	By the end of FY 2008-09. Would be covered in procedures in Response #39.

Recommendation	Responsible Agency	Response	Explanation
44. Determine what frequently-used tools and equipment, if any, are appropriate for shops to hold within their physical space or in vehicles. Require these items to be run through the centralized tool crib and signed out to the shops using the established procedures for issuing tools and equipment. Require the shops to use similar processes for storing and checking out tools and equipment to employees for use on projects to ensure accountability over these items.	Port	Concur	By the end of FY 2008-09. Would be covered in procedures in Response #39. We will include purchasing, inventory, and vendor payment performance goals in Port employee annual performance plans that will be evaluated in the annual performance appraisals.

Recommendation	Responsible Agency	Response	Explanation
45. Provide training to staff on tool control practices and the Maintenance Division's policies and procedures regarding management of tools and equipment.	Port	Concur	By June 30, 2008, Port management will conduct training covering new or updated policy directives and will cover the management of tools and equipment. Training for detailed procedures will be conducted for Maintenance staff, as they are developed and released for implementation (as incorporated in Response #39). We will include purchasing, inventory, and vendor payment performance goals in Port employee annual performance plans that will be evaluated in the annual performance appraisals.

Recommendation	Responsible Agency	Response	Explanation
46. Pursue alternatives to the Avantis Facilities Maintenance Management System. Conduct a needs analysis to determine whether a combined facilities maintenance and inventory management system or separate systems for each function will best meet the Maintenance Division's needs. Specifically identify why Avantis did not meet the Maintenance Division's needs and address those issues when identifying potential alternatives to the Avantis system.	Port	Concur	By the end of FY 2009-10, Maintenance spent the last year and a half evaluating Avantis' strengths and weaknesses. A replacement system is needed. Port Maintenance is outlining a business model and working to determine its requirements for a Maintenance Management System (MMS). An RFP will be developed within the next year. It is anticipated that the new MMS will not be fully implemented until FY2009-10. Interim solutions will be considered in FY 2008-09 to accelerate getting off Avantis, including possibilities within the Port's existing Oracle-based financial software suite.

Recommendation	Responsible Agency	Response	Explanation
47. Develop a security plan to identify who should be allowed access to various areas throughout the Maintenance Division.	Port	Concur	By the end of FY 2008-09, Maintenance will coordinate efforts with the Port's Director of Homeland Security Division and jointly develop a security plan for Pier 50 and other Maintenance locations, together with associated policy and procedures. In addition to the plan, we will: • Research key control systems. • Procure, install, and implement a new control system • Relock and/or rekey areas where necessary. • Train staff.
48. Rekey all locks so that multiple areas are not accessible with the same key unless there is a bona fide need, and to eliminate the risk that unauthorized people have keys to Maintenance Division facilities.	Port	Concur	March 2008. Pier 50 Storeroom rekeyed. By the end of FY 2008-09. Other rekeying may occur as needed, but more comprehensive change will be implemented in concert with the security plan developed as part of Response #47.

Recommendation	Responsible Agency	Response	Explanation
49. Develop and implement policies and procedures for effective key control: • Designate a key control manager to implement, execute, and enforce key control policies and procedures. • Establish a policy and method for issuing and collecting all keys; consider legitimate and official requirements rather than only access requirements for each area when authorizing employees to have keys. • Establish a method for safeguarding all keys and key blanks that have not been issued against fire and theft.	Port	Concur	By the end of FY 2008-09, Effective key control will be included in the policies and procedures developed as part of security plan (See Response #47).

Recommendation	Responsible Agency	Response	Explanation
- Establish recordkeeping procedures to account for all keys, including a system for numbering each key and obtaining employee signatures upon receipt and return of keys. - Conduct random key checks, on at least an annual basis, to ensure that accountability of keys is maintained. - Develop and communicate enforcement procedures including policies regarding loaning of keys to others; creating duplicate keys; reporting lost, stolen, or damaged keys; requirements for securing areas after entry and departure; storing keys when not in use; and disciplinary actions for noncompliance.			

Recommendation	Responsible Agency	Response	Explanation
50. Explore the feasibility of replacing the current traditional key system with an automated key card system to eliminate unauthorized copying of keys and to increase accountability over use of keys, including where and when they are used.	Port	Concur	By the end of FY 2008-09, See Response #47. The feasibility of replacing the current traditional key system with an automated key card system would be evaluated during the development of a Pier 50 and Port-wide security plan.
51. Designate an employee parking area(s) that is separate from areas where Port materials are stored. Purchase and post signs for the materials storage areas that say, "Maintenance Vehicle Parking Only." Do not allow Maintenance Division vehicles in the employee parking area(s) or personal vehicles in the materials storage areas, and do not allow employees to take any Port materials into the employee parking areas.	Port	Concur	April 2008. Separate employee-only parking lot is in progress with an anticipated completion in early April 2008. Policy and procedures for use to be developed and distributed.

Recommendation	Responsible Agency	Response	Explanation
52. Develop and implement policies and procedures for allocating costs to work orders. Specifically, the policies and procedures should: • Establish criteria to determine when to assign costs to a project work order versus a default work order. • Assign responsibility within each shop for allocating the costs of its purchases to the appropriate work order.	Port	Concur	Immediate. Staff reminded of importance of charging time and materials to proper job order for specific work for internal cost accounting (i.e. specific job costing and facility expense tracking) and possible billing or recovery purposes. Superintendents and Shop Supervisors are responsible for proper coding. More comprehensive update to procedures and employee training would be necessary when new system is implemented, both any short-term interim software solution and the final new MMS. Among the elements to be covered: • Opening and closing of work orders. • Charging or allocating labor. • Charging or allocating materials. • Weekly review of work order allocation. • Correcting misallocations. We will include purchasing, inventory, and vendor payment performance goals in Port employee annual performance plans that will be evaluated in the annual performance appraisals.

Recommendation	Responsible Agency	Response	Explanation
53. Develop management reports that include a description of each purchase and the work order to which it was charged. Regularly (e.g., monthly) review the reports to identify incorrect cost allocations and default work orders that appear to have excessive charges against them.	Port	Concur	FY 2009-10. Improved and detailed management reports covering work order transactions will only be substantially improved through the new MMS. We will include purchasing, inventory, and vendor payment performance goals in Port employee annual performance plans that will be evaluated in the annual performance appraisals.
54. Draft and distribute a letter to all employees reminding them what activities are inappropriate uses of time during work hours. This letter should include specific examples of restricted behavior, but should also be clear that the list is not inclusive and that violations of this policy will result in disciplinary action.	Port	Concur	February 2008. Policy on Port Work Schedules 7.1 was re-distributed.

Recommendation	Responsible Agency	Response	Explanation
55. Immediately discontinue the practice of allowing employees to use Port resources for personal purposes under any circumstances. Draft and distribute a letter to all employees reminding them that using Port resources for personal purposes violates City policy and will result in disciplinary action.	Port	Concur	February 2008. Policy on use of Port Property 2.14.1 was re-distributed.
56. Consider installing global positioning system (GPS) devices in Port vehicles for the purpose of tracking the whereabouts of its vehicles at all times.	Port	Concur	By the end of FY 2008-09. Research other City departments and jurisdictions with GPS RFP's or contracts. At the time we deploy GPS, we will include implementation guidelines in the new and revised policies and procedures .

